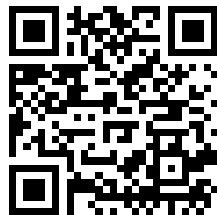


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# The JOURNAL of the UNITED SERVICE Institution of INDIA

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Sergeants' Messes and Regimental Libraries, Reading and Recreation Rooms shall be permitted to obtain the Journal on payment of an annual subscription of Rs. 10.

If a member fails to pay his subscription for any financial year (ending 31st December) before the 1st June in the following year, a registered notice shall be sent to him by the Secretary inviting his attention to the fact. If the subscription is not paid by 1st January following his name shall be posted in the Reading Room for six months and then struck off the roll of members.

Members joining the Institution, on or after the 1st October, will not be charged subscription until the following 1st January, unless the Journals for the current year have been supplied.

Members are responsible that they keep the Secretary carefully posted in regard to changes of rank and address. Duplicate copies of the Journal will not be supplied free to members when the original has been posted to a member's last known address, and not returned by the post.

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All papers must be typewritten (in duplicate) and only on one side of the paper. All proper names, countries, towns, rivers, etc., must be in capital letters. All plans must have a scale on them.

Contributors are responsible, when they send articles containing any information which they have obtained by virtue of their official positions, that they have complied with the provisions of Regulations for the Army in India, para. 204, and King's Regulations, para. 522.

Anonymous contributions under a *non-de-guerre* will not be accepted or acknowledged; all contributions must be sent to the Secretary under the name of the writer and the paper will, if accepted, be published under that name unless a wish is expressed for it to be published under a *non-de-guerre*. The Executive Committee will decide whether the wish can be complied with.

The Committee reserve to themselves the right of omitting any matter which they consider objectionable. Articles are only accepted on these conditions.

The Committee do not undertake to authorise the publication of such papers as are accepted in the order in which they may have been received.

Contributors will be supplied with three copies of their paper *gratis*, if published.

Manuscripts of original papers sent for publication in the Journal will not be returned to the contributor, unless he expresses a wish to have them back and pays the postage.



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3. The Reading Room of the Institution is provided with most of the leading illustrated papers, newspapers, magazines, and journals of military interest that are published.

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5. The Institution publishes a Quarterly Journal in the months of January, April, July and October which is issued postage free to members in any part of the world.

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United Service Institution of India.

JANUARY 1930.

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**I.—New Members.**

The following new members joined the Institution from 1st September to 30th November 1929:—

*Ordinary Members.*

Captain C. G. Cardew.

2-Lieut. G. R. Stevens.

Major A. Jabbar.

Lieut. C. B. Boulden.

Captain G. M. Barker.

Captain J. E. Fairlie.

Captain C. F. Wreford.

**II.—Examinations.**

1. The following table shows the campaigns on which the military history papers will be set from March, 1930, for lieutenants for promotion to captain in sub-head (b) (iii) and for captains for promotion to major in sub-head (d) (iii):—

1	2	3	4	5
Serial No.	Date of examination.	Campaign set for the first time.	Campaign set for the second time.	Campaign set for the last time.
1	March, 1930 ..	Battles of Aubers Ridge, Festubert and Loos, 1915.	Egypt and Palestine from the outbreak of war with Germany to June, 1917.	..
2	October, 1930 ..	..	Battles of Aubers Ridge, Festubert and Loos, 1915.	Egypt and Palestine, from the outbreak of war with Germany to June, 1917.
3	March, 1931 ..	Marlborough's Campaigns, 1702-09.	..	Battles of Aubers Ridge, Festubert and Loos, 1915.

2. Before beginning to read Marlborough's Campaigns, candidates are advised to study carefully Section 9, Training and Manœuvre Regulations, 1923.

3. Army Orders 11 and 292 of 1927 and 49 of 1928 were re-published as India Army Orders 241 and 768 of 1927 and 359 of 1928, respectively.

4. Books on military history and languages with dictionaries are available in the Library. The following list of books may be found useful for reference by officers studying for Promotion Examinations or entrance to the Staff College :—

(The list of books presented and purchased as shown in the Journal should also be consulted.)

### MILITARY HISTORY.

1.—*The Campaign of the British Army in France and Belgium.*

#### A.—OFFICIAL HISTORY OF THE WAR.

Military Operations, France and Belgium, Vol. I (to October, 1914).

Military Operations, France and Belgium, Vol. II (to 20th November, 1914).

Military Operations France and Belgium, Vol. IV, 1915.

Sir John French's Despatches.

#### B.—OTHER BOOKS.

40 days in 1914 (General Maurice, new edition).

1914 (Viscount French).

My War Memories (Ludendorff).

General Headquarters, 1914-16, and its Critical Decisions (Falkenhayn).

The March on Paris, 1914 (Von Kluck).

Ypres, 1914. (An official account) (German General Staff).

Oxford Pamphlets, August 1914. The Coming of the War. (Spencer Wilkinson).

Oxford Pamphlets, August 1914, Nos. VII and X.

Times Documentary History of the War, Vol. V, Military, Part I.

Times Documentary History of the War, Vol. VIII, Part III.

Der Grobe Krieg : Die Schlacht bei Mons (German General Staff).

Der Grobe Krieg : Die Schlacht bei Longwy (German General Staff).

Story of the Fourth Army (Montgomery).



*2.—The Palestine Campaign.***A.—OFFICIAL ACCOUNTS.**

A Brief Record of the Advance of the Egyptian Expeditionary Force, 1919.

The Australian Imperial Force in Sinai and Palestine (H. S. Gullett).

The New Zealanders in Sinai and Palestine (Lieut.-Col. O. G. Powels).

The Official History of the Great War. Military Operations in Egypt and Palestine, Vol. I, and Maps (Lieut.-General Sir George MacMunn and Captain Cyril Falls).

The Official History of Australia in the War, 1914-18, Vol. VII, Sinai and Palestine (H. S. Gullett).

**B.—OTHER BOOKS.**

Soldiers and Statesmen (Field-Marshal Sir W. Robertson).

The Revolt in the Desert (T. E. Lawrence).

Allenby's Final Triumph (W. T. Massey).

How Jerusalem was Won (W. T. Massey).

Outline of the Egyptian and Palestine Campaigns, 1914-18 (Bowman-Manifold).

The Palestine Campaign (Colonel A. P. Wavell).

The Desert Campaign (W. T. Massey).

L'Attaque du Canal de Suez (Douin).

Army Quarterly—October 1920 (T. E. Lawrence's article).

Army Quarterly—January 1922 (Lieut.-Colonel Wavell and C. T. Atkinson's articles).

Cavalry Journal—October 1921 (Lieut.-Colonel Rex Osborne's article).

Cavalry Journal—July 1923 (Lieut.-Colonel Beston's article).

R. U. S. I. Journal—May 1922 (Colonel-Commandant Weir's article).

U. S. I. Journal—October 1923 (Captain Channer's article).

### 3.—*The Dardanelles Campaign.*

#### *Description.*

- Naval and Military Despatches .. A clear account of the operations in detail from the G. H. Q. standpoint.
- Reports of the Dardanelles Com- Fixes responsibility for the in-  
mission. ception and conduct of the campaign. An interesting study in the relationship between Politicians and Naval and Military Experts.
- The Dardanelles (Callwell) .. The best account and criticism of the strategic conduct of the campaign.
- Gallipoli Diary (Sir I. Hamilton) .. The campaign from the point of view of the C.-in-C. on the spot.
- Life of Lord Kitchener (Arthur) .. Throws considerable light on Lord Kitchener's direction of the campaign.
- The Dardanelles Campaign }  
(Nevinson). } Well written and picturesque  
Gallipoli (Masefield) } accounts by eye-witnesses.
- The World Crisis (Winston Churchill.) Explains his part in the inception of the campaign.
- Soldiers and Statesmen (Field-  
Marshal Sir W. Robertson). From the point of view of the C. I. G. S.
- Five years in Turkey (Liman Von Sanders).
- Official Account: Official History of the War, Naval Operations Vols. II and III.
- Gallipoli Campaign (Outline of Military Operations). By a Student.
- Experiences of a Dugout (Callwell).
- Despatches from the Dardanelles (Ian Hamilton).
- The Navy in the Dardanelles Campaign (Wemyss).
- Official History of the Great War, Gallipoli, May 1915. Vol. I (C. F. Aspinall Oglander).

*NOTE.*—For a fuller list of authorities, see Appendix I to Callwell's "The Dardanelles"

*4.—The Mesopotamia Campaign.*

The Campaign in Mesopotamia, 1914-18 (Evans).

Official History of the Campaign in Mesopotamia, Vol. IV  
(F. J. Moberly).

Critical Study of the Campaign in Mesopotamia up to April,  
1917.

Soldiers and Statesmen (Field-Marshal Sir W. Robertson).

The World Crisis (Winston Churchill).

Notes and Lectures on the Campaign in Mesopotamia  
(A. Kearsy).

*5.—Waterloo Campaign.*

Waterloo Campaign (J. H. Anderson).

Waterloo (Hilaire Belloc).

Wellington and Waterloo (Arthur Griffiths).

Waterloo, the Downfall of the first Napoleon (George  
Hooper).

Campaign of 1815 (W. H. James).

With Napoleon at Waterloo (E. B. Low).

Campaign of 1815, Ligny : Quatre-Bras : Waterloo (W.  
O'Connor Morris).

Waterloo Campaign (S. C. Pratt).

Wellington and Waterloo (G. W. Redway).

Wellington Campaigns. Peninsula-Waterloo, 1808-15, also  
Moore's.

Campaign of Corunna (C. W. Robinson).

*6.—Marlborough's Campaigns.*

History of the British Army, Vol. I (Hon. J. W. Fortescue).

Life of John, Duke of Marlborough, Vols. I and II (Archibald  
Alison).

The Wars of Marlborough, 1702-09 (Frank Taylor).

John Churchill, Duke of Marlborough, Vols. I and II (Viscount  
Wolseley).

Marlborough and the Rise of the British Army (O. T. Atkinson).

A Short Life of Marlborough (H. J. & E. A. Edwards).

The Battle of Blenheim (Hilaire Belloc).

7.—*The American Civil War.*

Stonewall Jackson and the American Civil War (G. F. R. Henderson).

History of the Civil War in the United States, 1861-65 (W. B. Wood and J. E. Edmonds).

History of the Campaign of Gen. T. J. (Stonewall) Jackson in the Shenandoah Valley of Virginia (William Allen).

American Civil War (J. H. Anderson).

The 1st American Civil War, 1775-78 (Henry Belcher).

The American Civil War, 1861-64 (John Formby).

History of the American Civil War (J. W. Draper).

Fredericksburg and Chancellorsville (J. E. Gough).

Battles and Leaders of the Civil War (Johnson and Buel).

War of Secession, 1861-62 (G. W. Redway).

8.—*The East Prussian Campaign.*

Tannenberg—First 30 days in East Prussia (Edmund Ironside).

9.—*The Russo-Japanese War, 1904, up to and including the Battle of Liao-Yang.*

A Staff Officer's Scrapbook (Ian Hamilton).

German Official Account.

Lectures on the Strategy of the Russo-Japanese War (Bird).

Question on the Russo-Japanese War (Brunker).

Official Account: The Russo-Japanese War (Naval and Military),  
3 Vols., published by Committee of Imperial Defence.

Outline of the Russo-Japanese War (Ross).

A Study of the Russo-Japanese War (Chasseur).

My Experiences at Nan Shan and Port Arthur (Tretyakow).

Outline History of the Russo-Japanese War, 1904, up to the  
Battle of Liao-Yang, with Questions and Answers (P. W.).

A Short Account of the Russo-Japanese War ("Footslogger").

An Account of the Battle of Liao-Yang (with questions and 10  
maps for examination purposes) (Bird).

10.—*Organization of the Army since 1868.***A.—ORGANIZATION OF THE ARMY SINCE 1868.**

History of British Army, by Fortescue, Vols. I to XI.

Outline of the Development of British Army, by Major-General Sir W. H. Anderson.

Our Fighting Services, by Sir Evelyn Wood.

**B.—FORCES OF THE EMPIRE.**

The Annual Army Estimates of Effective and Non-Effective Services (H. M. Stationery Office).

\* Notes on the Land Forces of the British Dominions, Colonies, Protectorates and Mandated Territories, 1928.

The Statesman's Year Book 1929.

Army List.

Articles in Newspapers and Magazines, *viz.*, R. U. S. I. Journal, Army Quarterly, Journal of the U. S. I. of India, etc.

† Handbooks for the Indian Army—Sikhs, 1928.

11.—*Development and Constitution of the British Empire.***A.—THE BRITISH EMPIRE.**

Encyclopædia Britannica—(contains much concentrated information).

The Statesman's Year Book 1929.

Whitaker's Almanack.

The Colonial Office List.

The Government of the British Empire (Jenks, 1923).

The Foundation and Growth of the British Empire (J. A. Williamson, 1918).

The Beginnings of English Overseas Enterprise (Sir C. P. Lucas 1917).

The British Empire Series. (12 Volumes).

The Government of England (L. A. Lowell, 1912).

The Expansion of the British Empire (W. H. Woodward, 1921 and 1924 editions).

Overseas Britain (E. F. Knight, 1907).

The Origin and Growth of the English Colonies and of Their System of Government (H. E. Egerton, 1903).

---

\* Particularly recommended by the C. I. C. S. for all officers to read.

† Not to be removed from the library.

A Short History of Politics (Jenks, 1900).  
The English Constitution (Bagehot, 1909).  
The Expansion of England (Sir J. Seely, 1883).  
Introduction of the Study of the Law of the Constitution (A. V. Dicey, 1908).  
England in the Seven Years' War (Sir J. Corbett, 1907).  
Selected Speeches and Documents on British Colonial Policy, 2 Vols. (A. B. Keith, 1918).  
Forty-one Years in India (Lord Roberts).  
History of the British Army (Sir John Fortescue).  
General Survey of the History of India (Sir Verney Lovett).  
Citizenship in India (Captain P. S. Cannon).  
India in 1926-27 (J. Coatman).  
India in 1927-28 (J. Coatman).  
India (Nations of to-day Series). (Sir Verney Lovett).

**B.—BOOKS ON SPECIAL PORTIONS OF THE EMPIRE OR WORLD.**

The Rise and Expansion of British Dominions in India (Sir A. O. Lyall, 1894).  
A Brief History of the Indian Peoples (Sir W. H. Hunter, 1907).  
The Nearer East (Hogarth, 1902).  
Modern Egypt (Cromer, 1908).  
Egypt and the Army (Elgood, 1924).  
The History of Canada (W. L. Grant).  
Nova Scotia (B. Wilson, 1911).  
Report on British North America (Sir C. P. Lucas).  
The Union of South Africa (R. H. Brand, 1909).  
Short History of Australia (E. Scot).  
History of the Australasian Colonies (Jenks, 1912).  
The English in the West Indies (J. A. Froude, 1888).  
The Lost Possessions of England (W. F. Lord, 1896).  
International Relations of the Chinese Empire (H. B. Mosse);  
(Kelly and Walsh, Shanghai).  
What's Wrong with China ? (Gilbert).  
Why China Sees Red (Putman-Weale).  
Napoleon's Campaigns in Italy (Lieut.-Col. R. G. Burton)

12.—*Military Geography.*

Naval and Military Geography of the British Empire (Dr. Vaughan Cornish, 1916).

Imperial Military Geography (Capt. D. H. Cole, 1928).

Introduction of Military Geography (Col. E. S. May).

Imperial Defence (Col. E. S. May).

Main Feature of the Japanese and other Pacific Problems.

(Reprinted from *Morning Post*. Sifton Præd).

Britain and the British Seas (H. J. Makinder, 1907).

Military Geography (Macguire).

Imperial Strategy (Repington).

War and the Empire (H. Foster).

Historical Geography of British Colonies (Dominions), 7 Vols.

(Sir C. P. Lucas, 1906-17)—

Vol. , Mediterranean.

Vol. 2, West Indies.

Vol. 3, West Africa.

Vol. 4, South Africa.

Vol. 5, Canada.

Vol. 6, Australia.

Vol. 7, India.

The Influence of Sea Power on History (A. T. Mahan, 1890).

Historical Geography of the British Empire (Hereford George).

The Mastery of the Pacific (A. R. Colquhoun, 1902).

Frontiers (C. B. Fawcett, 1918).

13.—*Foreign Armies.*

## OFFICIAL.

\* Handbook of the United States Army, 1924.

\* Handbook of the Army of the Netherlands, 1922.

\* Handbook of the French Army, 1925.

\* Handbook of the Belgian Army, 1926.

\* Handbook of the Polish Army, 1927.

\* Handbook of the Army of the Kingdom of Serbs, Croats and Slovenes (Yugo-Slavia) 1927.

\* Handbook of the Czechoslovak Army, 1927.

\* Handbook of the Swiss Army, 1924.

\* Handbook of the German Army, 1928.

\*NOT to be removed from the Library.



#### 14.—*Tactical.*

Common mistakes in the solution of tactical problems and how to avoid them (Lieut.-Colonel A. B. Beauman, 1926).

Historical illustrations to Field Service Regulations, Vol. II (Major E. G. Eady, 1926).

Elementary Tactics or the Art of War, British School (Major R. P. Pakenham-Walsh, 1926).

#### III.—Payment for Articles in the Journals.

Articles accepted for publication in the Journal are paid for, and a sum of approximately Rs. 750 is awarded for articles and reviews published in each Quarterly Journal.

#### IV.—Contributions to the Journal.

Articles submitted for publication must be typed in *duplicate*. With reference to Regulations for the Army in India, paragraph 204 and King's Regulations, paragraph 522, action to obtain the sanction of His Excellency the Commander-in-Chief to the publication of any article in the Journal of the United Service Institution of India will be taken by the Committee.

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#### V.—Library Rules.

1. The Library is only open to members and honorary members of the United Service Institution of India. Members are requested to look upon books as not transferable to their friends.

2. No book shall be taken from the Library without making the necessary entry in the register. Members residing permanently or temporarily in Simla are requested to enter their addresses.

3. The United Service Institution of India is open all the year round—including Sundays—from 9 A.M. until sunset. Books may be taken out at any time provided Rule 2 is complied with.

4. A member shall not be allowed, at one time, more than three books or sets of books.

5. Papers, magazines, "works of reference" or books marked "Not to be Taken Away," or noted as "Confidential" may not be removed.

6. No particular limit is set as to the number of days for which a member in Simla may keep a book, the Council being desirous of making the library as useful as possible to members; but if after the expiration of a fortnight from date of issue it is required by any other member it will be re-called.

7. Applications for books from members at out-stations are dealt with as early as possible, and books are despatched per Registered P. P. They must be returned carefully packed per Registered Parcel Post within one month of date of issue.

8. If a book is not returned at the end of one month, it must be paid for without the option of return, if so required by the Executive Committee.

9. Lost and defaced books shall be replaced at the cost of the member to whom they were issued. In the case of lost books which are out of print the value shall be fixed by the Executive Committee, and the amount, when received, spent in the purchase of a new book.

10. The issue of a book under these rules to any member implies the latter's compliance with the rules, and the willingness to have them enforced, if necessary, against him.

11. A list of all books presented and purchased, and also a list of books useful to members studying for the Staff College and Promotion Examinations, will be found under Secretary's Notes in the quarterly issue of the U. S. I. Journal.

12. Members are invited to contribute presents of books, maps and photographs of naval and military interest. These may be addressed to the Secretary, U. S. I. of India, Simla. They will be duly acknowledged.

#### **VI.—Library Catalogue.**

The catalogue is completed to 31st March 1924. Price Rs. 3-8-0 or postage paid Rs. 3-14-0. An addendum completed up to 30th September 1927 is available. Price As. 8 plus postage As. 4.

## VII.—Army List Pages.

The U. S. I. is prepared to supply members and units with manuscript or type-written copies of Indian Army List pages, at the rate of Rs. 2 per manuscript or type-written page.

## VIII.— BOOKS PRESENTED.

<i>Title.</i>	<i>Published.</i>	<i>Author.</i>
1. The Defence of Bowler Bridge (Presented by Messrs. William Clowes & Sons, Ltd., London).	1929.	H. E. Graham.
2. India Under Wellesley (Presented by Messrs. G. Bell & Sons, Ltd., London).	.. 1929.	P. E. Roberts.
3. Four Months Camping in the Himalayas. (Presented by the Messrs. Philip Allen & Co., Ltd., London).	1929.	W. G. N. Van Der Sleen.
4. The White Mutiny (Presented by The Oxford University Press, Bombay).	.. 1929.	Sir Alexander Cardew.
5. Afghanistan—From Darius to Amanullah. (Presented by Messrs. G. Bell & Sons, Ltd., London).	1929.	Sir George MacMunn.

## BOOKS PURCHASED.

<i>Title.</i>	<i>Published.</i>	<i>Author.</i>
1. All Quiet on the Western Front	1929.	C. M. Remarque.
2. The Case of Sergeant Grischa	1929.	Arnold Zweig.
3. War as an Instrument of National Policy.	1929.	J. T. Shotwell.
4. The New British Empire	.. 1929.	L. Haden Guest.

	<i>Title.</i>	<i>Published.</i>	<i>Author.</i>
5.	British Documents on the Origins of the War, Vol. IV 1903—07, Vol. V 1905—09.	1928.	G. P. Cooch and Temperly.
6.	The British Empire	.. 1929.	Sir Frank Fox.
7.	An Ambassador of Peace, Vol. I, From Spa. 1920 to Rapallo 1922.	1922.	D'Abernon.
8.	The Vicissitudes of Organised Power.	1929.	Sir John Fortescue.
9.	On the Edge of Diplomacy—Rambles and Reflections 1902—1918.	1929.	J. D. Gregory.
10.	Armies of the First French Republic, Vol. II 1792—1797.	1929.	Col. C. P. Phipps.
11.	Marshal Foch—His Own Words on Many Subjects.	1929.	Raymond Recouly.
12.	British Strategy	.. 1929.	Sir F. Maurice.

**BOOKS ON ORDER.**

1.	The Dilemma in India	..	Sir Reginald Craddock.
2.	The Way of a Man with a Horse.		Brooke.
3.	A Soldier's Diary of the Great War.		Anonymous.

## IX.—Schemes.

The schemes in the Institution have been considerably increased and in order to simplify their issue they have been classified and numbered as follows

They can all be obtained by V. P. P., plus postage, on application to the Secretary.

(A) *Administrative Exercise, with diagram. (Reprinted May, 1928).*

To illustrate the supply system of a Division (suitable for Staff College or Promotion) .. Rs. 2

(B) *Mountain Warfare (Reprinted May, 1928).*

(i) A scheme complete with map and solution .. , 2-8

(ii) Three Lectures on Mountain Warfare .. , 1-8

(C) *Staff College Series (Reprinted May, 1928). Complete with maps and solutions :—*

## (i) Approach March.

Reconnaissance of night attack.

Orders for night attack .. .. Rs. 2-8

## (ii) Outposts.

Defence.

Action of a Force Retiring .. .. , 2-8

## (iii) Move by M. T.

Occupation of a defensive position.

Counter-attack .. .. , 2-8

(D) *Promotion Series (Reprinted May, 1928). Complete with maps and solutions.**Lieutenant to Captain—*

(i) Mountain Warfare .. .. Rs. 2-8

## (ii) Defence.

Attack orders .. .. , 2-8

*Captain to Major—*

## (i) Outposts.

Defensive position.

Withdrawal .. .. , 2-8

## (ii) Tactical Exercise without troops.

Reconnaissance.

Attack orders .. .. , 2-8

(E) *Course of five lectures given at the London School of Economics, 1925, on "Transportation in War." As. 12.*

**(F) Staff College Course Schemes (1928) :—**

- (i) A set of three schemes, as given at the Army Headquarters Staff College Course, 1928, complete with maps and solutions, complete set .. Rs. 5

**(G) The following tactical schemes, and a limited number of other papers, as given at the Army Headquarters Staff College Course, 1929, are available :—**

**TACTICAL SCHEMES.**

- (i) 3 Schemes complete with maps and solutions.. Rs. 3 each.

**OTHER PAPERS.****Precis of Lectures on —**

(ii)	Night Operations .. ..	Rs. 1 ..
(iii)	The Palestine Campaign from 9th November 1927 .. ..	Rs. 1 As. 8 ..
(iv)	The Dardanelles Campaign .. ..	Rs. 1 .. 8 ..
(v)	Action of the B. E. F. in 1914 (up to and including the Aisne) .. ..	Rs. 1 ..
(vi)	American Civil War (1st Lecture) .. ..	As. 12 ..
	American Civil War (2nd Lecture) .. ..	Rs. 12 ..
(vii)	Napoleon's Campaign in Italy 1796 .. ..	Rs. 12 ..
(viii)	Waterloo Campaign .. ..	Rs. 12 ..
(ix)	The Peninsular War up to and including Salamanca .. ..	Rs. 12 each
(x)	East Prussian Campaign in 1914 .. ..	Rs. 12 ..
(xi)	The Russo-Japanese War up to the Battle of Liao-Yang .. ..	Rs. 8 ..
(xii)	Ordnance Services .. ..	Rs. 8 ..
(xiii)	The Organization of the British Army .. ..	Rs. 8 ..
(xiv)	Artillery Organization .. ..	Rs. 8 ..
(xv)	Transportation (War) .. ..	Rs. 8 ..
(xvi)	Training .. ..	Rs. 8 ..

(xvii) The "Q" Administrative Services in Peace	As. 8	„
(xviii) Anti-aircraft Defence in the Field	.. „ 8	„
(xix) The rôle of an Air Force Co-operation with a Military Force	.. .. „ 8	„
(xx) The Tactical Employment of Divisional Artillery in Mobile Warfare	.. .. „ 8	„
(xxi) Intercommunication within a Division	.. „ 8	„
(xxii) Armoured Cars	.. .. „ 8	„
(xxiii) Tanks	.. .. „ 8	„
(xxiv) The Employment of Cavalry with a Brigade of all Arms	.. .. „ 8	„
(xxv) The Dominion Forces	.. .. „ 8	„
(xxvi) Indian Territorial Force	.. .. „ 8	„
(xxvii) Military Law (II)	.. .. „ 8	„
(xxviii) Military Law (III)	.. .. „ 8	„
(xxix) Military Law Paper (questions and answers)	„ 8	„
(xxx) Hints on Working for the Examination and on tackling the Tactical Papers	.. „ 8	„
(xxxi) Organization and Administration (Peace)	.. „ 8	„
(xxxii) Organization and Administration (War)	.. „ 8	„

Copies of Military Law paper (questions and answers), as given at the Army Headquarters Staff College Course, 1926, are also available at As. 4 per copy.

Efforts are being made to compete with demands for tactical schemes from officers working for the Staff College and Promotion Examinations by introducing as many new schemes as possible.

It is obviously impossible for the Secretary to undertake the correction of individual solutions, but all the recent schemes include a suggested solution in the form in which it is considered that the paper should have been answered, with reasons for the solution given.

Officers are recommended to work all their schemes against time and to get into the habit of the methodical allotment of time to the various questions asked.



**X.—GOLD MEDAL PRIZE ESSAY COMPETITION, 1930.**

The Council has chosen the following subject for the Gold Medal Prize Essay Competition for 1930 :—

“With the development of our frontier policy the tribesmen are gradually finding it more and more difficult to pursue their normal avocation of raiding; economic conditions in tribal territory, however, remain much as they were.”

“Discuss how best we can assist the economic development of tribal territory and provide a field of employment for the rising generation of tribesmen.”

The following are the conditions of the competition :—

(1) The competition is open to all gazetted officers of the Civil Administration, the Royal Navy, Army and Royal Air Force or Auxiliary Forces, who are members of the U.S.I., of India.

(2) Essays must be printed or type-written and submitted in triplicate.

(3) When reference is made to any work, the title of such work is to be quoted.

(4) Essays are to be strictly anonymous. Each must have a motto and, enclosed with the essay, there should be sent a sealed envelope with the motto written on the outside and the name of the competitor inside.

(5) Essays will not be accepted unless received by the Secretary on or before the 30th June 1930.

(6) Essays will be submitted for adjudication to three judges, chosen by the Council. The judges may recommend a money award, not exceeding Rs. 150, either in addition to or in substitution of the medal. The decision of the three judges will be submitted to the Council, who will decide whether the medal is to be awarded and whether the essay is to be published.

(7) The name of the successful candidate will be announced at a Council Meeting to be held in September or October 1930.

(8) All essays submitted are to become the property of the United Service Institution of India absolutely, and authors will not be at liberty to make any use whatsoever of their essays without the sanction of the Council.

(9) Essays should not exceed 15 pages of the size and style of the Journal, exclusive of any appendices, tables or maps.

By order of the Council.

G. B. HENDERSON, MAJOR,

*Secretary, United Service Institution of India.*

SIMLA :

1st January 1930.

## Prize Essay Gold Medallists.

*(With Rank of Officers at the date of the Essay).*

- 1872..ROBERTS, Lieut.-Col. F. S., V.C., O.B., R.A.  
 1873..COLQUHOUN, Capt. J. S., R.A.  
 1874..COLQUHOUN, Capt. J. S., R.A.  
 1879..ST. JOHN, Maj., O.B.C., R.E.  
 1880..BARROW, Lieut. E. G., 7th Bengal Infantry.  
 1882..MASON, Lieut. A. H., R.E.  
 1883..COLLEN, Maj. E. H. H., s.c.  
 1884..BARROW, Capt. E. G., 7th Bengal Infantry.  
 1887..YATE, Lieut. A. C., 27th Baluch Infantry.  
 1888..MAUDE, Capt. F. N., R.E.  
     YOUNG, Maj. G. F., 24th Punjab Infantry (specially awarded a silver medal).  
 1889..DUFF, Capt. B., 9th Bengal Infantry.  
 1890..MAGUIRE, Capt. C. M., 2nd Cavy. Hyderabad Contingent.  
 1891..CARDEW, Lieut. F. G., 10th Bengal Lancers.  
 1893..BULLOCK, Maj. G. M., Devonshire Regiment.  
 1894..CARTER, Capt. F. C., Northumberland Fusiliers.  
 1895..NEVILLE, Lieut.-Col. J. P. C., 14th Bengal Lancers.  
 1896..BINGLEY, Capt. A. H., 7th Bengal Infantry.  
 1897..NAPIER, Capt. G. S. F., Oxfordshire Light Infantry.  
 1898..MULLALLY, Maj. H., R.E.  
     CLAY, Capt. C. H., 43rd Gurkha Rifles (specially awarded a silver medal).  
 1899..NEVILLE, Col. J. P. C., s.c.  
 1900..THUILLIER, Capt. H. F., R.E.  
     LUBBOCK, Capt. G., R.E. (specially awarded a silver medal).  
 1901..RANKEN, Lieut.-Col. G. P. P., 46th Punjab Infantry.  
 1902..TURNER, Capt. H. H. F., 2nd Bengal Lancers.  
 1903..HAMILTON, Maj. W. G., D.S.O., Norfolk Regiment.  
     BOND, Capt. R. F. G., R.E. (specially awarded a silver medal).  
 1904..MAOMUN, Maj. G. F., D.S.O., R.F.A.  
 1905..COCKERILL, Maj. G. K., Royal Warwickshire Regiment.  
 1907..WOOD, Maj. E. G. M., 99th Deccan Infantry.  
 1908..JEUDWINE, Maj. H. S., R.A.  
 1909..MOLYNEUX, Maj. E. M. J., D.S.O., 12th Cavalry.  
     ELSMIE, Maj. A. M. S., 56th Rifles, F. F. (specially awarded a silver medal).  
 1911..MR. D. PETRIE, M.A., Punjab Police.  
 1912..CARTER, Maj. B. C., The King's Regiment.  
 1913..THOMSON, Maj. A. G., 58th Vaughan's Rifles (F. F.).  
 1914..BAINBRIDGE, Lieut.-Col. W. F., D.S.O., 51st Sikhs (F. F.).  
     NORMAN, Maj. G. L., M.V.O., Q. V. O. Corps of Guides (specially awarded a silver medal).  
 1916..CRUM, Maj. W. E., V.D., Calcutta Light Horse.  
 1917..BLAKER, Maj. W. F., R.F.A.  
 1918..GOMPERTZ, Capt. A. V., M.C., R.E.  
 1919..GOMPERTZ, Capt. M. L. A., 108th Infantry.  
 1920..KEEN, Lt.-Col. F. S., D.S.O., 2/15th Sikhs.  
 1922..MARTIN, Maj. H. G., D.S.O., O.B.E., R.F.A.  
 1923..KEEN, Col. F. S., D.S.O., I.A.  
 1926..DENNY, Maj. L. E., M.C., 4/12th Frontier Force Regiment.  
 1927..HOGG, Maj. D. Mc. A., M.C., R.E.  
 1928..FRANKS, Maj. K. F., D.S.O., 5th Royal Mahrattas.  
 1929..DENNY, Maj. L. E., M.C., 4/12th Frontier Force Regiment.

## MACGREGOR MEMORIAL MEDALS.

1. The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major-General Sir Charles MacGregor. The medals are awarded for the best military reconnaissances or journeys of exploration of the year.

2. The following awards are made annually in the month of June.—

(a) For officers—British or Indian—silver medal.

(b) For soldiers—British or Indian—silver medal, with Rs. 100 gratuity.

3. For especially valuable work a gold medal may be awarded in place of one of the silver medals, or in addition to the silver medals, whenever the administrators of the fund deem it desirable. Also the Council may award a special additional silver medal, without gratuity, to a soldier, for especially good work.

4. The award of medals is made by His Excellency the Commander-in-Chief, as Vice-Patron, and the Council of the United Service Institution who were appointed administrators of the Fund by the MacGregor Memorial Committee.

5. Only officers and soldiers belonging to the Army in India (including those in civil employ) are eligible for the award of the medal.\*

6. The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal.†

### *Note.*

(i) Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal; but in the event of two journeys being of equal value, the man who has run the greater risk will be considered to have the greater claim to the reward.

(ii) When the work of the year has either not been of sufficient value or has been received too late for consideration before the Council Meeting, the medal may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief to deserve it.

### MacGregor Memorial Medallists.

*(With rank of officers and soldiers at the date of the Award.)*

1889..BELL, Col. M. S., V.O., R.E. (specially awarded a gold medal).

1890..YOUNGHUSBAND, Capt. F. E., King's Dragoon Guards.

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\* *N. B.*—The terms "officer" and "soldier" include those serving in the British and Indian armies and their reserves, also those serving in Auxiliary Forces, such as the Indian Auxiliary and Territorial Forces and Corps under Local Governments, Frontier Militia, Levies and Military Police, also all ranks serving in the Indian States Forces.

† Replacements of the ribbon may be obtained on payment from the Secretary, U. S. I., Simla.

## MacGregor Memorial Medallists—(contd.).

- 1891..SAWYER, Maj. H. A., 45th Sikhs.  
RAMZAN KHAN, Havildar, 3rd Sikhs.
- 1892..VAUGHAN, Capt. H. B., 7th Bengal Infantry.  
JAGGAT SINGH, Havildar, 19th Punjab Infantry.
- 1893..BOWER, Capt. H., 17th Bengal Cavalry (especially awarded a gold medal).  
FAZALDAD KHAN, Dafedar, 17th Bengal Cavalry.
- 1894..O'SULLIVAN, Maj. G. H. W., R.E.  
MULL SINGH, Sowar, 6th Bengal Cavalry.
- 1895..DAVIES, Capt. H. R., Oxfordshire Light Infantry.  
GANGA DYAL SINGH, Havildar, 2nd Rajputs.
- 1896..COCKERILL, Lieut. G. K., 28th Punjab Infantry.  
GHULAM NABI, Sepoy, Q. O. Corps of Guides.
- 1897..SWAYNE, Capt. E. J. F., 10th Rajput Infantry.  
SHAHZAD MIR, Dafedar, 11th Bengal Lancers.
- 1898..WALKER, Capt. H. B., Duke of Cornwall's Light Infantry.  
ADAM KHAN, Havildar, Q. O. Corps of Guides.
- 1899..DOUGLAS, Capt. J. A., 2nd Bengal Lancers.  
MIHR DIN, Naik, Bengal Sappers and Miners.
- 1900..WINGATE, Capt. A. W. S., 14th Bengal Lancers.  
GURDIT SINGH, Havildar, 45th Sikhs.
- 1901..BURTON, Maj. E. B., 17th Bengal Lancers.  
SUNDAR SINGH, Colour Havildar, 31st Burmah Infantry.
- 1902..RAY, Capt. M. R. E., 7th Rajput Infantry.  
TILBIR BHANDARI, Havildar, 9th Gurkha Rifles.
- 1903..MANIFOLD, Lieut.-Col. C. C., I.M.S.  
GHULAM HUSSAIN, Lance-Dafedar, Q. O. Corps of Guides.
- 1904..FRASER, Capt. L. D., R.G.A.  
MOGHAL BAZ, Dafedar, Q. O. Corps of Guides.
- 1905..RENNICK, Maj. F., 40th Pathans (specially awarded a gold medal).  
MADHO RAM, Havildar, 8th Gurkha Rifles.
- 1906..SHAHZADA AHMAD MIR, Risaldar, 36th Jacob's Horse.  
GHAFUR SHAH, Lance-Naik, Q. O. Corps of Guides Infantry.
- 1907..NANGLE, Capt. M. C., 92nd Punjabis.  
SHEIKH USMAN, Havildar, 103rd Mahratta Light Infantry.
- 1908..GIBBON, Capt. C. M., Royal Irish Fusiliers.  
MALANG, Havildar, 56th Punjab Rifles.
- 1909..MUHAMMAD RAZA, Havildar, 106th Pioneers.

## MacGregor Memorial Medallists—(concl'd.).

- 1910..SYKES, Maj. M., C.M.G., late 2nd Dragoon Guards (specially awarded a gold medal).  
TURNER, Capt. F. G., R.E.  
KHAN BAHADUR SHEER JUNG, Survey of India.
- 1911..LEACHMAN, Capt. G. E., The Royal Sussex Regiment.  
GURMUKH SINGH, Jemadar, 93rd Burmah Infantry.
- 1912..PRITCHARD, Capt. P. P. A., 83rd Wallahjabad Light Infantry (specially awarded a gold medal).  
WILSON, Lieut. A. T., C.M.G., 32nd Sikh Pioneers.  
MOHIBULLA, Lance-Dafedar, Q. V. O. Corps of Guides.
- 1913..ABBAY, Capt. B. N., 27th Light Cavalry.  
SIRDAR KHAN, Sowar, 39th (K. G. O.) Central India Horse.  
WARATONG, Havildar, Burmah Military Police (specially awarded a silver medal).
- 1914..BAILEY, Capt. F. M., I.A. (Political Department).  
MORSHEAD, Capt. H. T., R.E.  
HAIDAR ALI, Naik, 106th Hazara Pioneers.
- 1915..WATERFIELD, Capt. F. C., 45th Rattray's Sikhs.  
ALI JUMA, Havildar, 106th Hazara Pioneers.
- 1916..ABDUR RAHMAN, Naik, 21st Punjabis.  
ZARGHUN SHAH, Havildar, 58th Rifles (F. F.) (specially awarded a silver medal).
- 1917..MIAN AFRAZ GUL, Sepoy, Khyber Rifles.
- 1918..NOEL, Capt. E. W. C. (Political Department).
- 1919..KEELING, Lieut.-Col. E. H., M.C., R.E.  
ALLA SA, Jemadar, N. E. Frontier Corps.
- 1920..BLACKER, Capt. L. V. S., Q. V. O. Corps of Guides.  
AWAL NUR, C. Q. M. Havildar, 2nd Bn., Q. V. O. Corps of Guides. (Special gratuity of Rs. 200.)
- 1921..HOLT, Maj. A. L., Royal Engineers.  
SHER ALI, Sepoy No. 4952, 106th Hazara Pioneers.
- 1922..ABDUL SAMAD SHAH, Capt., O.B.E., 31st D. C. O. Lancers.  
NUR MUHAMMAD, Lance-Naik, 1st Guides Infantry, F. F.
- 1923..BRUCE, Capt. J. G., 2/6th Gurkha Rifles.  
SOHBAT, Head Constable, N.-W. F. Police.  
HABI SINGH THAPA, Survey Department (specially awarded a silver medal).
- 1924..HAVILDAR RAHMAT SHAH, N.-W. F. Corps.  
NAIK GHULAB HUSSAIN, N.-W. F. Corps.
- 1925..SPEAR, Capt. C. R., 5/13th Frontier Force Rifles.  
JABBAR KHAN, Naik, 5/13th Frontier Force Rifles.
- 1926..HARVEY-KELLY, Maj. C. H. G. H., D.S.O., 4/10th Baluch Regiment.
- 1927..LAKE, Maj. M. C., 4/4th Bombay Grenadiers.
- 1928..BOWERMAN, Capt. J. F., 4/10th D. C. O. Baluch Regiment.  
MUHAMMED KHAN, Havildar, Zhob Levy Corps.
- 1929..ABDUL HANAN, Naik, N.-W. F. Corps.  
(With gratuity of Rs. 100.)  
GHULAM ALI, Daffadar, Guides Cavalry (specially awarded a silver medal).

# The Journal

OF THE

## United Service Institution of India.

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Vol. LX.      JANUARY, 1930.      No. 258.

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### EDITORIAL.

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Many of us become so engrossed in the petty details of our everyday life that we fail to appreciate the absorbing interest of the times in which we live. Events of epoch-making importance occur. For a brief space, and in accordance with their value as copy, they are given the publicity of newspaper headlines, and then they fade away. Their honour and their glory are snatched away from them, not because they have ceased to be of importance, nor because outstanding questions arising from their occurrence have in any way been settled, but rather for the reason that they have been supplanted by some fresh happening.

The perfection of the news agency system brought about by modern inventions which aim at the elimination of time and space, tends to convert the marvel of yesterday into the commonplace of to-day. Yet evolution is a slow process. It is a succession of events, not necessarily large in themselves, but so connected and interwoven as eventually to form a complete change in any given set of circumstances. If therefore we are to follow cause and effect, we must resist the tendency merely to read the headlines of our daily papers. They give us, it is true, the most sensational news of the day, but only a careful search will disclose the obscure paragraph which will throw further light on an event which was perhaps holding the attention of the world a week before.

Some of our readers will possibly consider that this careful scrutiny of world events is outside the province of the soldier whose prime object it is to prepare himself and his men against the

time of war. With this view we cannot agree. Soldiering is a very much more complicated business to-day than it was a hundred years ago, and in order to cultivate an open and flexible mind it is essential for us to lift our thoughts beyond the barrack square, the manoeuvre ground, and the office stool. That this is recognized is evidence by the increasing encouragement given to the soldier of all ranks to broaden his mental outlook.

With many of us the difficulty is to know where and how to start to attain this desirable object. There is so much to learn, so many books to read, and it is only as we progress that our shortcomings become the more apparent to us. No two of us are at precisely the same stage of development, and therefore to generalize as regards the reading of books is both impossible and unprofitable. The study of current events, however, is on a somewhat different plane, though, obviously, the advantage will rest with him who is more widely read. It is never too late to start. The opportunity occurs each day with the arrival of the daily paper. Within its pages, if we will only look for it, will be found the fluctuating but ever absorbing drama of the world, unfolding itself kaleidescopically before our eyes, and played by the uncontrollable forces of destiny. To read this intelligently and to reflect on it will create a new interest for those who hitherto having glanced through the paper and discovered, perhaps, that Hobbs has on that particular day failed to make his customary century, have cast it from them with the remark that it is dull, and that there is nothing in it. And this is not all. The intelligent study of current events not only will create a new interest for the soldier, it will definitely broaden his vision, and will certainly make him a better citizen.

It is this third point that we would like to emphasise, for a soldier is no less a citizen than is his civilian brother. In modern warfare the distinction between the two as we see it is growing ever less. It might almost be said indeed that the soldier is merely a civilian with the addition of some specialist training. On his entry into the service he undertakes certain liabilities extra to those which his brother civilian has to fulfil, but before them both lies the same goal, the betterment of our Empire, the most potent world agency for peace today. It is the greatest mistake to imagine that the soldier's duty to his country consists merely of perfecting himself and his machine in the art of war.

The recent evacuation of our troops from the Rhineland has afforded a striking example of the British soldier in an ambassadorial capacity. His position as a member for eleven years of an army of occupation in enemy territory was a delicate one. By his bearing he has done more than perhaps is yet realized to create again that feeling of respect and friendship that is so essential between Germany and ourselves if the peace of Europe is to rest on a sound basis. It is perhaps not too much to say that the occupation which was regarded by many as likely to prove a constant irritant, has, thanks to the fact that our soldiers have comported themselves as true citizens of our Empire, in the event turned out a positive blessing. Through it we too have learned a new the many good qualities inherent in the German character. The occupation has been honourable alike to both parties.

The political aspect has perhaps never been of greater interest than it is to-day. It is indeed no easy matter to select two or three problems on which to touch from the many which are of major importance, but since we are in India let us turn first to those which at the moment affect us most closely.

The Viceroy's historic pronouncement has directed the attention of all at home to this country. It has led to full dress debates in both Houses of Parliament, and from the speeches made and the sentiments expressed we have a very clear lesson to learn. Never was it more imperative for us to avoid loose thinking and loose talking. This is a lesson not only for statesmen but also for the rank and file of us whose service lies in India. As soldiers we cannot actively affect the evolution which is taking place around us, but by a careful watch over our words and actions we can do much to bring about what we no less than our civilian brothers desire—a consolidated and contented Empire.

Events in Afghanistan have moved quickly since the last issue of the Journal, and it is to be sincerely hoped that the accession of Nadir Khan as King betokens the dawn of a new era of prosperity for our neighbours. His task is no sinecure, and his efforts to create law and order to replace the chaos which lasted for ten months will be watched by us with sympathy. Information as to the means by which Nadir Khan achieved success is meagre, but it would appear to be definitely established that one



of the most important factors was the use he made of propaganda. The successful use of this most valuable weapon is to be noted by those of us who are students of war.

At Home Unemployment, the Mining problem, the extension of social services, and Naval disarmament are among the most burning questions of the day. Each is a subject vast in itself, and possessing features of very personal interest to every one of us. Wrapped up with and closely allied to them are many other problems too numerous to mention. The whole forms a part of what is known as world politics. To study them seriously would be a life work, but to understand them intelligently is within our compass. Time thus spent will amply repay us not only in arousing our interest but in broadening our outlook on life.

Of particular interest to those of us who from time to time are required to face examinations, is the official and categorical denial which was recently given to the report that the project for the Channel Tunnel had been definitely abandoned. It must therefore still be considered as a subject fit for resurrection from time to time as a means of testing a candidate's power of expression.

To those of our readers with statistical predilections, the calculation of the amount of ink spilled by generations of examinees on this old chestnut may possibly provide a promising field of investigation. It must be clearly understood, however, that no prize is offered for the correct, or in fact for any, solution.

While writing on this topic we are reminded that the Spanish proposal to tunnel the straits of Gibraltar has recently been before the public eye. The effect of such an undertaking on our position at Gibraltar is a matter for consideration.

# THE GOLD MEDAL PRIZE ESSAY, 1929.

By

MAJOR L. E. DENNYS, M. C.

## *Subject.*

In future campaigns on the frontier we may encounter tribesmen, either equipped themselves with, or supported by other troop possessing modern artillery and aircraft. How can we best, both on the march and in bivouac, combine protective measures to safeguard ourselves against tribal tactics, as we have known them in the past, supported by such modern weapons.

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## *I.—Introductory remarks.*

The subject of this essay is obviously intended to promote discussion on a war in N.-W. F. tribal territory. For the N.-W. F. tribes themselves to be equipped with modern artillery and aircraft pre-supposes them to have reached a degree of civilization and prosperity which would have changed the whole frontier problem.

The second alternative therefore is considered in this essay, namely that the tribesmen are "supported by other troops possessing modern artillery and aircraft." These other troops would in all probability be either Afghan, or Russian, or both.

This raises two factors which have a bearing on the discussion which follows—leadership and moral.

We must expect the combined enemy force to have a commander with more military knowledge and strategical sense than that possessed by the ordinary tribal leader, and one who can ensure on occasions concerted action between his regulars and the tribal lashkars.

On the other hand the tribesman is too independent to make a good ally, especially when things go wrong. The defeat of the enemy's regular troops and the destruction or capture of his much vaunted artillery and aircraft might consequently be expected to have a marked and possibly decisive moral effect on the tribes.

The following, then, are assumed as a basis of argument for this essay :—

- (a) That a war is in progress in N.-W.F. tribal territory against a combined force of foreign regular troops, possessing modern artillery and aircraft, and tribesmen. Such a campaign would probably be part of a bigger war against Afghanistan or Russia.
- (b) That the enemy's guns and aircraft are approximately similar in strength and performance to our own.
- (c) That the enemy has a leader capable of co-ordinating the action of his own regulars and the tribal lashkars, the latter having lost none of the characteristics which make them adept at guerilla warfare in their own country.

## *II.—Outline of our present strategical and tactical methods.*

Before considering the effect of these conditions on the problem of protecting our own forces, it is necessary to review in outline the main characteristics of our strategy and tactics in frontier campaigns at the present time.

These are governed by nature far more than by the enemy. It is the country and not tribal action which is the chief factor in dictating our tactics and circumscribing our strategy.

### *Manual of operations on the N.-W. F. Section 2.*

"The country consists generally of a succession of mountain ranges from which run down a tangled mass of rugged precipitous ridges, intersected by deep narrow valleys.

More often than not the only possible routes for formed bodies of troops and transport lie along the valleys, with an occasional steep pass over some intervening ridge. These routes are mere mule tracks and considerable work is usually required to make them passable even for camels.

The country as a whole is sterile.....Water is scarce..... Local resources are practically *nil* and all supplies have to be carried.

Owing to the absence of good roads it is, as a rule, impossible to use wheeled and motor transport. Pack animals alone can accompany a column in the hills and these are normally unable to move on a wide front. Supply columns and train are therefore both long and

vulnerable; and, as there is a limit to the number of men and animals which it is possible to move over one road during the hours of daylight, a force may have to be broken up into small columns moving by separate routes, or on the same route at a day's interval. Against a badly organized enemy this is not so dangerous as it might be in other circumstances."

The greatest handicap with which we have to contend is the lack of roads. In addition to limiting the number of fighting troops which can be employed on any one line, this also limits the nature of these troops, and forces us to leave various important component parts of our fighting machine behind in India.

As a rule the only way we can subdue an offending tribe is by entering its territory. Both political and military considerations thrust an offensive rôle on us and make an advance into the heart of tribal country imperative.

Having entered it we seldom have satisfactory objectives. We move against important villages and areas of material or sentimental value, hoping thereby that the tribes will collect to oppose us, and afford us an opportunity of dealing them a severe blow early in the campaign.

Our advance to these localities is a slow and cumbersome process. Strategical surprise is out of the question. Opportunities for tactical surprise are few and far between. As a rule the enemy knows exactly where we are, by what route we must move and the limit of our next day's march.

His tactics on the other hand are purely guerilla. He has virtually no organization and no transport, and is incapable of keeping any large force collected for more than a few days at a time. He is, however, very mobile. His lashkars can collect, move and disperse with bewildering rapidity.

To put it colloquially the case is this. We have plenty to hit him with, but its use is limited by the ground. Also because we must assume the offensive and advance through this difficult country, we have to leave important component parts of our striking power behind in India. Further, he is a bad target, difficult to observe and to hit.

On the other hand we are an excellent target, always a known quantity, easy to observe and very vulnerable—but he has very little to hit us with.

If he has an ally with regular troops, guns and aeroplanes, three points appear to stand out clearly :—

(1) We now have a more definite objective, something to hit, namely—the enemy's regulars, guns and aircraft. The defeat or destruction of them is more likely to break up the alliance and end the war than action against the tribes or their property.

(2) We shall probably require more hitting power. This means increased supply columns.

(3) The enemy has more to hit us with, and the problem of protecting our troops and transport during the approach march to within striking distance of our objective will be greatly increased.

*III.—Present protective tactics and effect on them of enemy guns and aircraft.*

Up to the present the task of our protective troops has been a comparatively easy one. All they have had to do is to keep the enemy out of effective rifle range of our troops and transport.

On the march this is done by holding all important features commanding the route with piquets. These are really only standing flank guards, which remain in position until the whole column has passed.

In bivouac the force is protected by a similar system of piquets on commanding ground round the camp.

The tribesman is a skilful night fighter and these piquets cannot prevent him from crawling up nullahs between them and sniping the force at night at close range, or collecting to rush it during darkness or at dawn. In addition to the camp piquets, therefore, further protection is afforded by building a perimeter or some form of breastwork round the camp.

This perimeter is manned by the fighting troops of the column, to whom it provides some cover against night sniping and a system of defence in case of sudden attack. To protect administrative units and to prevent animals from stampeding, all transport is collected inside the camp at night, a fact which considerably increases the size of the perimeter.

Now to consider the effect on this form of protection of the addition of artillery and aircraft to the enemy's armament.

*On the march.*

The Achilles heel of a column operating in tribal territory is its transport.

It consists chiefly of camels, a large proportion of which belong to sildar camel corps, whose animals are badly trained and whose personnel have little or no military instinct or knowledge.

Without these camels the column cannot exist. Sufficient casualties among them will certainly halt it, and may even result in a retrograde movement with its inevitable consequences.

Fortunately the tribesman is a poor strategist and has never fully realised these facts. At one period of the 1919-20 campaign in Waziristan the Mahsud did indulge in long range sniping of our camels and the result would have embarrassed us considerably had he kept it up longer. With a leader capable of ensuring concerted action between the enemy's guns, aeroplanes and tribesmen against our transport on the march, the results might well prove disastrous.

Since the enemy's commander will probably be in a position to anticipate our movements, there is nothing to prevent him from getting his guns into a position on a flank from which he can, with air observation, shell our transport on the march. This he could do with comparative safety to himself if he chose his time and place intelligently; for instance, if our force was bound to march a known distance from one water supply to the next. In such a case our fighting troops would not have sufficient time to leave the line of march to attack the enemy guns. These guns would also be difficult to locate from the air or to silence by counter-battery action if located.

The effect of accurate shelling on a mass of slow moving semi-trained transport in a narrow defile would be chaos.

If, in addition, one or two road protection piquets were shelled out of their positions, with tribesmen ready to rush through the gaps on to the transport below, the material damage would be increased.

The result would probably be either the retirement of our fighting troops or the abandonment of part of our transport.

The same result might be achieved by enemy air action, either by itself or in conjunction with artillery and tribal attack.

A long transport column moving slowly up a nullah bed with no chance of scattering or adopting more open formations must

be a good target for air attack, either by bombing or machine gunning. The winding nature of the nullah and the steep slopes which invariably exist on either side of it would, however, do much to minimise the effect of anything but a direct hit. A bomb dropping only a few yards on either side of the column would burst well above it and probably do no damage.

Unlike artillery, aircraft are incapable of registering on certain points on the line of advance and keeping them under continuous fire.

It is safe to say, then, that air attack to be really effective must be carried out from low altitudes, not more than about 5,000 feet above the column.

Sufficient has now been said to show that to continue our present protective tactics on the march under the conditions now visualised is to court disaster.

#### *In bivouac.*

The same applies to protection in bivouac. The size of a perimeter camp for a mixed Brigade with its supply column is usually about 450 by 350 yards. Our own pilots in practice bombing are expected not to exceed an error of 4 per cent. of their own height in dropping their bombs, that is to drop within 200 feet of their target when flying at 5,000 feet.

These figures speak for themselves as regards the suitability of the present perimeter camp as a target for air attack by day. To facilitate protection against tribesmen these camps are, moreover, located in the flattest and most open ground which can be found, and are clearly visible from the air.

Effective night bombing of them is improbable. Conditions for night flying over frontier hills are bad, and in any case the enemy's energies as regards this form of attack would be better directed against rail heads or other important targets on the L. of C.

With his artillery, on the other hand, the case is different. Should he succeed in getting his guns within range of our bivouac and in registering on it, a perimeter camp by either day or night would become a veritable shell trap.

#### *IV.—Possible Antidotes.*

The first remedy which suggests itself is to refrain, as far as possible, from fighting Nature as well as the enemy.

It is our Army which has to contend with the difficulties of the country; our Air Force is hardly affected by them. Will it not be possible, therefore, to concentrate on offensive action by the R.A.F., the rôle of the Army being purely subsidiary?

At first sight this course appears to have much to commend it. Let it be remembered that our first object is the destruction of the enemy's regular troops, artillery and aircraft. Admittedly these would not furnish such good targets for air attack as would our own troops. The fact that they were operating in a friendly country would free them from many of the disadvantages with which we have to contend. They would be more lightly equipped than our army and more mobile, and could be broken up into small parties moving by different routes and able to concentrate rapidly when required.

Nevertheless suitable targets for our Air Force would be bound to occur at times. It must also be remembered that, owing to the very bad communications on the Afghan side of tribal territory, losses in men and material to the enemy's regulars would be hard to replace and the effect of them might be out of all proportion to the actual figures.

If our air offensive could be sustained and carried out in sufficient force it might eventually succeed in destroying the enemy's aircraft and in driving his regular troops out of tribal territory. This would leave the Army with the comparatively easy task of subduing the tribes by themselves and after their morale had already been shaken.

It is, however, improbable that sufficient aircraft would be available to give this course a fair chance of success. It was stated early in this essay that the campaign under discussion would probably be a "side show," a part only of a larger war. The bulk of our Air Force would in that case be employed elsewhere.

Apart from this it has several serious disadvantages. It would not stop raiding or hostile action by tribesmen into British territory. The subsidiary rôle of the Army would probably be some form of blockade. In the most favourable conditions a blockade is unsatisfactory. In any other circumstances it is a failure. It is wasteful in men and money and its effect on the morale and health of the troops is deplorable.

Attractive as this course may appear on the surface, therefore, it is one which, in all probability, would be impracticable in war. We



should have to advance into tribal territory with our ground troops and the problem of protecting them against enemy guns and aircraft during their advance must be considered.

This will be discussed under three heads:—

- (1) Air deception and concealment.
- (2) Direct defence against air attack.
- (3) Protection against enemy artillery.

#### AIR DECEPTION AND CONCEALMENT.

##### (a) *On the march.*

By day none appears to be possible. One cannot conceal a column several miles long moving up a frontier valley when its route is known before hand and the ground precludes the adoption of air formations.

Some cover from view may at times be obtainable in shade under nullah banks or in scrub jungle, but the camel cannot be disciplined to use it.

The only real concealment is to move by night.

##### (b) *In bivouac.*

Something can be done to break up the outline of perimeter camps by tucking them under hillsides or locating them in broken ground or scrub jungle, and in camouflaging bivouac shelters.

It will seldom be feasible to split the force up into a series of smaller perimeter camps. To gain any advantage thereby these camps must be a mile or more apart. This would usually increase problems of administration and watering to an impossible extent.

The construction of dummy camps or the adoption of elaborate camouflage arrangements with the striking force are out of the question owing to the amount of extra transport required.

Perimeter camps cannot be dispensed with entirely, for tribal tactics have still to be guarded against. Probably the best course will be to conceal them as well as possible and evacuate them by day, men and animals being hidden under any cover which may exist in the neighbourhood. This is by no means a satisfactory solution. It will increase the difficulties of local protection, and animals will be very visible and vulnerable when leaving or returning to camp and at watering times.

##### *Direct defence against air attack.*

The means which can be used are:—

##### Aircraft.

A. A. guns, with the necessary searchlights, sound locators, etc.  
Small arms fire.

*Aircraft.*

Our own Air Force will at all times be the mainstay of our direct defence. Its chief task will be a sustained offensive against enemy aeroplanes in the air and on the ground.

*S. A. fire, A. A. guns.*

A regular system of piquetting the route with A. A. light automatics will be necessary to protect the transport on the march, and also round perimeter camps.

At best these can only cope with enemy aircraft at heights below 3,000 feet and cannot provide any real protection against bombing. For this A. A. guns in addition are essential.

After the capture of Jerusalem a somewhat similar problem arose in the Judean hills in Palestine. Communications were bad and camps, although not enclosed in perimeter walls, were similar to those on the frontier and were very vulnerable to air attack. Accurate shooting by A. A. guns, combined with the air superiority which was then being established, succeeded in keeping enemy aircraft so high that no case of successful bombing of our troops in that area occurred for several months before the final offensive.

*Protection against enemy guns.*

On the march the only solution is to move by night if shelling is expected.

In bivouac real protection can be gained only by effective counter-battery work, for which something more than pack guns and howitzers is required.

We have now reached the following conclusions. The chief dangers to which our force would be exposed are :—

*From enemy guns.* Shelling our transport on the march by day, combined with tribal action.

Shelling our perimeter camps by day or night.

*From enemy aircraft.* Bombing and machine gunning our transport on the march by day. Bombing our perimeter camps. Apart from action by our own Air Force the possible antidotes for these dangers resolve themselves into two only, namely :—

Move by night.

Increased armament.

*Move by night.*

We have little experience of night marches in frontier warfare. Two instances in comparatively recent times are the march of a force of the Tochi Militia in 1915 to block the retreat of a hostile lashkar near Spinwam, and General Skeen's advance to capture the Ahnai Tangi in January 1920. Both were successful because they were unexpected, but in neither case was the move of a large body of transport involved.

If we constantly move by night the factor of surprise will be eliminated and we will encounter opposition or sniping by tribesmen, especially to our vulnerable transport. The move by night of large bodies of camels over rough and difficult country will then be out of the question.

If we are to move by night, therefore, we must eliminate the camel and reduce other pack transport to the minimum. The only possible substitute is M. T., and for M. T. we must have a road, metalled if the M. T. is wheeled, unmetalled if it is tracked.

The construction of a road is the only solution to the provision of our other main requirement, increased armament. Once we have it we can bring up artillery for counter-battery work and A. A. guns to protect our force from air attack.

If our force is to be adequately protected, therefore, a slow methodical advance combined with road construction appears to be the only solution.

Let us assume that this policy has been adopted and examine its effect on our protective tactics.

Our supply column is now M. T., on tracks for the last stage up to S. R. P. which has not yet been metalled.

We have A. A. guns and camouflage material as well as small arms fire to protect us from air attack. We have guns which can outrange those of the enemy, and we have more of them. An adequate supply of ammunition for them is assured.

Our route is protected by permanent piquets in splinter-proof posts.

Our striking force in bivouac is no longer hampered by large numbers of transport animals which have to be protected by day and night. It is consequently easier to conceal by day and to protect, both against enemy shelling, air attack or tribal action by day or night.

Our transport is much less vulnerable to all forms of attack since it takes up less space, moves much faster and is easier to control.

Should the enemy succeed in shelling the road with guns which we are unable to locate, surprise can be effected by moving the transport by night. Such measures as bold action by road protection troops just before dusk to clear any enemy parties from the vicinity of the road, and escorts of armoured cars with good searchlights, suggest themselves as measures to safeguard M. T. convoys against tribal action at night.

Road construction is a very slow and tedious process, but against this must be set its moral effect. The effect on all other frontier tribes of our occupation of Waziristan has been marked. They now believe that road construction means permanent occupation and the loss of their cherished independence. Properly handled this would be a tremendous political asset in the hands of the force commander.

One wonders how long a tribe would hold out, even when under the influence of foreign troops, against the slow and inexorable driving of a road into their territory, if they knew that at each successive stage of the advance their country, up to the limit reached by the striking force, would become permanently part of British India.

At the head of the road the striking force must have sufficient pack mules to give it a radius of action of 24 to 36 hours. For that time it must be really mobile and able to cover long distances at a rapid pace by day and night.

The enemy will get used to our slow rate of advance, no quicker than that of road construction. An occasional lightning blow will, therefore, stand a good chance of surprising him. To do so our striking force must be able to move as fast as his regulars and very nearly as fast as his tribesmen. It will be fighting an unusual enemy in an unusual country and must be prepared to drop various encumbrances necessary for a usual war. Packs and greatcoats must be left behind, baggage reduced to the absolute minimum and troops must be prepared to go out with 24 hours cooked or iron rations in their haversacks and to exist on them for that time. It is possible with good discipline and training, and nowadays the moral effect of speed, both on our own troops and on the enemy, does not receive the consideration it deserves.

*V.—Conclusion.*

To sum up. In the conditions visualised in this essay protection to our advancing columns on the march or in bivouac will not be effected by minor changes in our present protective tactics.

Two courses are possible :

(1). Offensive action against the enemy's aircraft, guns and regulars by our Air Force, combined with subsidiary action on the part of our ground troops, probably some form of blockade on our own border.

This course can only hope to succeed if the air offensive can be sustained and carried out in sufficient strength. It is improbable that sufficient aeroplanes would, in practice, be available to recommend its adoption.

(2). A slow methodical advance into tribal territory combined with road construction to enable us to cut out the camel and substitute M. T., and to bring up more armament in the shape of artillery for counter-battery work and A. A. guns.

Our striking force at road head to be made as mobile as possible for a radius of action of up to 36 hours. Our Air Force to concentrate primarily on the destruction of the enemy aircraft in the air and on the ground.

It may well be that the requirements of our main armies in aeroplanes, M. T. and road construction troops will prohibit either of these courses being adopted. The commander on the spot will then be faced with two alternatives. Either he can enter tribal territory and expose his force to grave danger from the enemy's aircraft and artillery, or he can adopt a defensive policy, without sufficient aeroplanes to combine it with a successful air offensive. They are alternatives with which no commander of a frontier expedition ought to be faced.

The remedy lies in the hands of our future frontier policy.

At some time or another we shall have to build more roads across the frontier. If, when the problem which has been discussed here does arise, we already have those roads, then the chief difficulty imposed by nature will have been removed. The problem is then already more than half solved.

## EDUCATION IN THE INDIAN ARMY A REPLY

BY

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Those who read an interesting article on "Education in the Indian Army" in the October Journal of the United Service Institution may welcome some remarks from another point of view and by an officer who has had a certain amount to do with the carrying out of the system, so severely condemned in the above article.

It may be conceded at once that the ideal would be for everybody in the Indian Army, if not in India, to talk English. All the advantages that are claimed for this medium by the author of the article in question are readily admitted. Co-operation between the British and Indian armies would be complete, literature for recreation purposes would be abundant. British officers could take a real part in the education of their men, and the men would more easily find employment on return to civil life.

The question, however, is not this, but rather it is—can it be done? Have we the time and means to teach English, considering, as we must, the difficulty of the task, the material we have to work on and the means available with which to do it? The language itself is admitted, even in Europe, to be one of the more difficult. To the Indian, it is new and entirely foreign, absolutely unconnected with any of his own languages, different in form and spirit, difficult to learn to pronounce and still more difficult to learn to read and write because of its spelling. It is often assumed that because in the course of a year or so, the men of a unit learn many English words, it would therefore be an easy progression to learn the whole language. It is not realised that the learning of words (most of which are, in the army, merely nouns, *viz.*, the names of military things) is the least part of the learning of a language. It is the numerous tenses of the verbs, the proper placing of words, adverbs, conjunctions, prepositions, the way of expressing ideas, the pronunciation and rhythm that make the learning of a language so big a task.

The material to be dealt with need not detain us. The men for the most part are entirely uneducated and they have never before

learnt a language—their own they speak of course but not knowing how. Keen and quick to learn in the field and on the parade ground, like all men from the land they are heavy and vacant-minded where mental effort is required.

“Fish-eyed listlessness sits upon its brow (the village school) and its veins run flat with boredom.”

Let us consider next the means at our disposal. Who are to teach these men? It is proposed that, in the absence of other teachers, British officers should do this. But British officers are few in units and are otherwise sufficiently employed, while the number of men to be taught is very large. If this is so, then a large staff of Indian teachers of English would be required. These can be obtained at a price but while English is being taught the men, what would be, in the Training Battalion for instance, the medium of instruction?

The men's own dialects? This would mean more languages for the British officer to learn who already finds it so difficult to learn one, and, as six months in the Training Battalion would be a mere beginning, the teaching would have to go on in the Active Battalion with another large staff, resulting, no doubt, in the more intelligent men knowing English fairly well by the time they were leaving the unit. And would not the followers also have to be taught English? For the British officer would naturally not want to learn Urdu when English had been declared the *lingua franca* of the army.

No, the fact is that there is not the time in a short service army to teach so unfamiliar a language to such untrained material with the small means available and at the same time teach the many other military matters that the modern soldier has to know. It may be said that it would be comparatively easy to teach sufficient English ‘for all practical purposes.’ A little knowledge leads to trouble. Would the men learn enough to understand the lectures of their officers? What sort of English would it be that the men spoke? One surely does not want the language mutilated or that an army English patois should spring up.

It is no reply to point to the number of men who qualify yearly in examinations in English. These men almost invariably knew English before they joined or are clerks or others who specialise in English. They come from a better educated town-dwelling class

that is enlisting in the army more freely than formerly—driven to it by the overcrowding of the ranks of the educated.

English, as the universal language in all strata of Indian society excepting that of the cultivator, will no doubt come in time. It will be a very long time however before the cultivator—the class we are mostly interested in—learns it. At present of course the men of this class who come to us have never heard a word of the language, and it is too big a task for us to start in and teach it to them and teach them also how to fight, in the time at our disposal. The writer of the article under reply himself practically admits this when he says, speaking of Roman Urdu, that the instructors trained at the School of Education “cannot be called experts. They spend, at the most, twelve months at the School, during which time they have much besides this language to learn.” If this is the case with men who are selected for their intelligence, where the language to be learnt is Urdu—one of their own languages—and where they receive almost individual attention from trained staff, what can be expected in English from large and uneducated classes composed of the rank and file?

If then to insist on the use of the English language would be, with things as they are, to throw too great a burden on the men and to assign undue time and effort to the acquiring of the means as opposed to the ends—which is military training, the question next arises—is the existing policy—the adoption of the Urdu language for speech and the English character for writing—the best possible?

No one will deny that Urdu is the language the most universally used in India. It is not claimed that it is generally known in the villages. It is known, however, by the minor officials—the patwari and the policeman—and it is spoken—after a fashion—in all towns and bazars. This is not much, but it is more than can be said for any other dialect of India, and of course it cannot be said at all of English, for the class we are dealing with. For, though it is quite true that “the ordinary language of intercourse between educated Indians of different races is English, not Urdu” yet the word ‘educated’ must be so qualified and restricted that the men of our army can scarcely be said to be concerned, and it will be a long time before they are.

The writer of the article we are referring to further says that one of the drawbacks of Urdu is that it is so like other Indian dialects



that the men do not bother to learn it. His remedy for this is to set them a more difficult language to learn. There is another possible remedy for this which will be mentioned later on.

Urdu as a language is also taunted with the fact that it "contains no words to describe many of the activities and common objects of life". That is quite true, but the same applies to English which was forced to call in Latin and Greek to its aid. Persian is assimilating French words, and it is quite proper that Urdu should do the same with English words.

As regards the script. The writer of the present article claims for the Roman Urdu system that the Urdu sounds are represented in a simple and adequate manner and without the introduction of any new symbols.

It is true, on the other hand, that no literature exists in Roman Urdu. The language, however, is still new and the demand for reading material will no doubt by degrees be met. Practically all the training manuals have now been translated into Roman Urdu. Of these, the writer in question says that "no one can be expected to read them for pleasure and least of all a beginner in the study of a strange language. Any way, they are far above the heads of ordinary recruit sepoy." Again I agree, but it may be asked do not these remarks apply with equal force to the English Training manuals? Does the British other rank read or understand the more difficult passages, in which these books abound? He reads and understands, the drill for his particular arm, and this the sepoy who knows or has been taught Urdu can also do. The other more difficult portions of the training manuals are taught and explained to the men, in both cases, by word of mouth.

May I be allowed now, in conclusion, to turn the picture over and look at its other side. If it is true, as is asserted, that the present system fails, what are the causes of it? The writer is inclined to think that it has failed only in certain units and that because it has not been given a fair trial. Do Commanding Officers of those units really have Urdu taught to their men? Do they insist on Urdu being spoken at all times in the unit or do they still wish to individualise their particular units by encouraging the use of the men's dialect? Do their British officers know Urdu sufficiently well to lecture to their men or do they allow, through lack of it, education "to become a side line in the hands

of I. Os. and N.-C.Os." ? Or rather, is it not the case (I quote again from the same article) that "Roman Urdu, the British officer's bugbear when it is applied to himself, is to blame." Yes, it is feared the British officer's Roman Urdu, that is to say his Urdu, is to blame.

At the last quarterly examination in the Urdu Qualifying, the following two sentences were to be translated into Urdu: "If the enemy advanced as fast as he could he would be there by now."

"Patrols may have reached the river but no large force can have reached it in so short a time."

No candidate succeeded in translating both of the sentences correctly. Piqued by this, the examiner gave the sentences, in the course of the oral test, to an officer appearing for a first class interpretership. He got neither of them wholly right. That then is the standard of our Urdu, and yet surely the ideas expressed in these two sentences are such as might be necessary to express in the field at any time.

Are we right in expecting from the sepoy or sowar what we cannot, in so many cases, do ourselves ?

## ANNUAL TRAINING—ANOTHER VIEW.

BY

MAJOR A. L. SKINNER.

An interesting article entitled "Annual Training" appeared in the October 1928 number of the U. S. I. (India) Journal. The writer showed how greatly the syllabus of the soldiers' training has increased since pre-war days, and pointed out that the Indian soldier's training year consists, not of 365 days, but of about 160 working days, and further, that his colour service is now reduced to 5 years. He rightly stresses the fact that the Indian soldier, as a class, is retentive, slow to learn, perhaps, but also slow to forget a lesson well learned. His solution of the difficult problem of how to teach more in less time is to extend the "training year" into a cycle of two years, i.e., to substitute "biennial training" for "annual training." He maintains that by this means the soldier will learn his whole syllabus thoroughly every two years, instead of half learning it every year, and that his retentive qualities will thus ensure his being more thoroughly proficient on transfer to the reserve than he is now.

The present writer, while agreeing that "biennial training" is one solution, does not believe that it is the best solution, and proposes in this article to give reasons for this belief, and to offer an alternative solution.

It will be conceded as axiomatic that any cycle of training must be progressive.

The present "annual training" aims at progress, during the cycle of one year, through all stages from individual training to brigade, divisional or army manoeuvres. The proposed "biennial training" would, doubtless, have a similar object. At the end of one year, therefore, the wheel would have turned half the circle. Here, it is thought, comes the first difficulty. What is to happen to newly attested soldiers joining from the training battalion during the second half of the cycle? It seems bad training—building without foundations—to allow them to join the wheel in mid-career. It is most undesirable from every point of view that these new arrivals be trained elsewhere than with their own companies; such a solution would split every company into two, destroy organisation, and break

the heart of the keen company commander who is already fighting an up-hill battle to hold his company together for training in the face of heavy demands from outside. Another disadvantage of the two-year cycle has reference to the ancient adage concerning the "swapping of horses in mid-stream." Continuity is the essence of a progressive programme. The necessity for Home leave would involve changes in command of companies "in midstream" to a far greater extent than they occur under the one-year system. Such changes cannot but be harmful, because it is an undoubted fact that any good officer will produce better results from a programme of his own making than from a programme made by some one else.

We now come back to the original question: Wherein does the present system of annual training fail?

The answer is that there is too much to do, and too little time in which to do it.

The previous writer solved the problem by extending the time.

The present writer would prefer to see it solved by reducing the amount to be done, and retaining the present one-year cycle.

The question of how this can be done will be considered under four headings:—

- (1). Training at the Training Battalion.
- (2). Individual training.
- (3). Collective training.
- (4). Other considerations.

(1). *Training at the Training Battalion.*—Let it be stated at the outset that the present writer is a whole-hearted believer in the T. B. system. Most officers will admit, however, that the pre-war recruit, trained in his own battalion, was more thoroughly fitted to take his place in the ranks, on attestation, than is the post-war product of the training battalion. It is suggested that the reason for this is that the training battalion—like the active battalion—is handicapped by having too much to do and too little time in which to do it.

The function of the training battalion is to *teach* the recruit, and *make him into a "trained soldier."*

The function of the active battalion] is to *exercise* the trained soldier in] *what* he has already learned, and to extend his knowledge in the more advanced spheres of co-operation and specialist training.

It follows that sketchy or half-digested training at the training battalion will result in waste of time at the active battalion.

The training of the pre-war recruit occupied about twelve months : the period allowed to his post-war comrade at the training battalion is limited to ten.

Surely this is ' spoiling the ship for a ha'porth of tar ', and every active battalion commander would welcome the extension of the recruit's training course to twelve months, if he could thereby ensure that his drafts from the training battalion are of pre-war or of still higher standard.

It is suggested that the extra time be devoted mainly to ensuring a more thorough and unforgettable grounding in his profession for each recruit. The syllabus might well be restricted by eliminating instruction in Lewis gun, grenades, etc., which can perfectly easily be imparted *de novo* in the active battalion. It should however ensure that every recruit, on attestation, has a thorough knowledge of how to use the rifle, bayonet, pick and shovel ; how to drill in close order and extended order ; how to behave in barracks, on parade, during night operations, on guard, and in games ; how to load transport and pitch a tent ; the value of education, and how to keep fit.

Some time-saving suggestions applicable alike to training and active battalions will be made later under heading 4. Suffice it now to say that the writer would particularly advocate the desirability of every recruit being required to qualify in " Table B " before attestation. This would be an enormous boon to the active battalion, wherein, as every regimental officer knows, the necessity of exercising additional " casualties " (mainly late-comers from the T. B.) costs time and labour and disorganisation out of all proportion to the results achieved.

(2). *Individual Training.*—The period allowed in the training year for Individual Training is from 1st April to the 15th October. It is a period during which the most trying conditions of weather coincide with a more than usually acute shortage of British officers. Both these handicaps are insurmountable ; we cannot control the weather, and Home leave is the only thing that saves the British officer from an early grave. It is the period for which it is harder to frame a programme than for any other time ; a period of effort to make bricks with insufficient straw ; the period the inadequacy of which has given birth to the idea of biennial training. Let us analyse it.

The time at our disposal is  $6\frac{1}{2}$  months, out of which Indian ranks are absent on leave or furlough for 3 months leaving  $3\frac{1}{2}$  months for actual work. The odd half month is easily absorbed by vaccinations, inoculations, quarantine, and other vicissitudes, leaving 3 months per company for work.

The work to be done during this period is :—

- (a). Preliminary training (rifle).
- (b). Range practices—Table “ B ”.
- (c). Preliminary training (Lewis gun).
- (d). Range practices—Table “ L ”.
- (e). Pistol course.
- (f). Individual and section battle practices.
- (g). A “ refresher ” course of elementary drill.
- (h). The fifty-odd items which are called, for convenience, “ Individual Training,” many (*e. g.*, bayonet training) of extreme importance, others less important.
- (i). Educational training.
- (j). P. T.

The last two items can be fitted into the normal day's work, so do not affect the total period of time available. Few, however, will dispute that two weeks for each of the items (a) to (f) is not an excessive allowance, bearing in mind the incidence of Indian holidays and vagaries of the weather, more especially in “ monsoon ” areas. This makes up our total of 3 months, and leaves no time at all for items (g) and (h). Nor has any time been allowed for interruptions due to duties and fatigues, since the erstwhile luxury of being “ struck off for musketry ” (or for anything else) seems to have disappeared for ever. It is thought that two weeks should be allowed for item (g) and one month for item (h), making a period of 8 months in all available for Individual Training. It is suggested that this period be from the 1st March to the 31st October.

(3). *Collective Training.*—It is thought that the usefulness of collective training, so far as the man in the ranks is concerned, reaches its zenith in “ company training,” usually a very jolly outing in camp for all concerned, with lots of work and lots of play. The cold weather has begun, it is the first camp of the season, all ranks are glad to get out of barracks for a change, and keenness runs high. Battalion, brigade and higher training provide invaluable instruction for officers of ever increasing rank, but cannot but become more and more

uninteresting for the “pawns in the game,” and more and more of a dull fatigue for the man in the ranks, unsustained as he is by the varied excitements of real war. It is for consideration therefore, with all respect, whether we are not inclined to devote too much time to battalion and higher training, leading to an unnecessary loss of keenness and precision on the part of junior commanders and troops.

It is thought that ten days is the limit of usefulness for a Battalion Camp, and one week for a Brigade Camp, and that three weeks is a suitable period for a Company Camp, the first week being devoted to Platoon Training. Assuming that our Collective Training season begins on 1st November, and that two companies at a time can be spared for “company training,” there is ample time to finish this before Christmas.

The first half of January is available for battalion training, brigade training following later in the month. February is free for any higher training there may be, and for inspections, and the training year is now complete.

(4). *Other considerations.*—The writer of the former article on “Annual Training” mentioned those “luxuries” (the inverted commas are his,—and mine) which are wont to crowd the end of our training year, *e. g.*, Assaults at Arms, A. R. A. competitions, etc. Any of these “luxuries” which are considered essential training for war would still have to be crowded into the months of January and February if the above redistribution of training periods were adopted.

But aren't we rather overdoing this “Olympic spirit?” Is it really any test of efficiency that Z Battalion wins the District tug-of-war with a team of heavy men who have been struck off soldiering for the past month and fed on ghee, or that Y Battalion excuses a team from Battalion Training to practise some A. R. A. competition every day, and thereby wins a cup?

We want our men to play games, but to play them voluntarily and not under “control;” to play for the fun of the game and not in this everlasting pot-hunting spirit. We want an army of fit and healthy soldiers, and not a few professional “Olympians.” It is thought that sufficient tournaments of all kinds will always be forthcoming by voluntary effort from within units and formations, but that the imposition of unwanted competitions is an unfair burden on a year already full.

There are a few other ways in which it is thought that time could be saved for the essential at the expense of the non-essential.

First there is the excellent proposal for the simplification of drill, which has already been the subject of articles in the "Army Quarterly" and in the "U. S. I. (India) Journal." Then there are the frequent minor dislocations of training due to inoculation, vaccination and various medical inspections. It is thought that much dislocation might be avoided by increased liaison between commanding officers and medical officers at the time when the training programme for the year is being drawn up. Dates for inoculation and vaccination can always be foreseen, and included in programmes at such times as they will not interfere with training.

Another saving of time for training could be effected by further reduction of office work. Some improvement in this respect there has been, but there is room for a very great deal more. The subject is a wide one, sufficient for a separate article, and it is not proposed to write more here beyond drawing attention to it.

Finally there is the Battalion Training Cadre, a post-war product which was invaluable at its inception, but is fast becoming a fetish. The Training Cadre was introduced to teach weapon training *only*, at a time when, owing to the War, very few officers were qualified to instruct in small arms. The Training Cadre has now grown to include tactical training, and no training programme is judged worthy which does not include a training cadre working full blast through the greater part of the year. The result is that companies are so depleted of officers and N.-C. O.'s who are absent in the 'Cadre,' either as instructors or as students, that the Company Commander can never get all his subordinate commanders together for individual training. This is surely wrong, and stultifies the chain of responsibility for training which is laid down in our training manuals. There can be few company commanders now-a-days who are unable to instruct their own companies in weapon training, and in elementary tactics, and these few, if they exist, cannot be held fit to command companies.

It is submitted that the Battalion Training Cadre, as a permanent institution, has outlived its usefulness, but that one "cadre" or "course" might advantageously be held before the beginning of each training year (February is suggested as a suitable time) to ensure that all officers are 'au fait' with the latest amendments. It should



be under the direct supervision of the C. O., should be attended by all British officers, and should include all branches of training in its curriculum. A fortnight should suffice for the 'course'. Its object would be to clarify the battalion programme for the coming year, to ensure that all officers are up to date in their professional knowledge, and to secure uniformity of doctrine within the battalion. Further instruction, downwards to the man in the ranks, should then follow through the right channels.

To conclude, it is submitted that the present one-year cycle is the ideal cycle for training. That the apparent shortage of time for training is due rather to the faulty distribution of time at our disposal than to any inadequacy of the total period available. That, given an extra two months training (including qualification in "Table B") at the Training Battalion, an individual training period of eight months, and a collective training period of four months, the one-year cycle is enough to ensure an efficient reserve and a sound training for war. That the suggestions made in para. 4 above would assist in saving still more time for essentials, but that the one-year cycle still stands even if they are not adopted.

For the future, it is submitted that the demand for extra time caused by the progress of science can best be met by a drastic simplification and "modernisation" of drill.

## STONEWALL *versus* IRONSIDE—A COMPARISON AND A CONTRAST.

By

CAPTAIN A. L. PEMBERTON, M. C.

In a previous article (\*) I have attempted to illustrate, by reference to the life of Oliver Cromwell, the modern psychological theory concerning the power of the unconscious mind, and to deduce therefrom the importance of cultivating, at least in the fighting services, a due measure of the fighting spirit.

To those who would study the conscious control and development of these instinctive forces, however, Cromwell's guidance is of little value. Gifted himself with a great natural aptitude for war, he remained for many years in ignorance of his own powers and was only awakened to reality by the cataclysmic happenings of the Civil War.

Even then the realization came slowly. As late as 1645 Waller could write of him that "at this time he had never shown extraordinary parts, nor do I think he did himself believe that he had them," and it was not until 1647 that he appears to have first entertained the idea of permanently adopting the military profession.

Unfortunately perhaps for his eventual reputation, the idea never materialized. In March, 1647, piqued apparently at an order by the House of Commons that no one but Fairfax should hold higher rank than that of colonel, and realizing, no doubt, that the order was aimed directly at himself, he began negotiating with the Elector Palatine for entering his service as a soldier on the Continent. Fate, however, had decided otherwise, and he remained at home to play out his tempestuous and unhappy rôle as a man of destiny.

At no time, then, can Cromwell be said to have made a conscious use of his military genius. Nor was he any more 'reasonable' in the methods he adopted for the cultivation of the fighting spirit. He just happened to live in troublous times and availed himself blindly of the opportunities which Fate offered him for feeding the fires of his aggressive temperament.

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(\*) See U. S. I. Journal, India, July 1929.

Sometimes it was religious, sometimes economic, differences that gave him these opportunities. At Ely, for example, he took exception to the choir service in use at the Cathedral, and wrote to Mr. Hitch, the officiating minister, requiring him to forbear altogether the said service, "so unedifying and offensive." The latter not unnaturally refused to comply with his order, whereupon Cromwell stamped up the aisle with his hat on, "calling in hoarse barrack tones to Mr. Hitch, 'Leave off your fooling, and come down, sir!'" (\*)

On another occasion, in 1641, when the House of Commons appointed a committee to investigate the complaints of certain peasants of St. Ives, whose common land had been bought and enclosed by the Earl of Manchester, Cromwell associated himself more vigorously than discreetly with the cause of the oppressed ones. In fact the chairman complained that, in his reply to Lord Mandeville—Manchester's son—he spoke with "so much indecency and rudeness, and in language so contrary and offensive," and that, "in the end, his whole carriage was so tempestuous, and his behaviour so insolent, that the chairman found himself obliged to reprehend him."

Nowadays, of course, such behaviour as this could hardly be recommended as a means of keeping alive the fighting instinct, particularly in the case of a member of the fighting services. In the British Empire these services have acquired more and more the characteristics of a police force, whose main task is the preservation of law and order. They are, therefore, rightly enough debarred from taking a professional interest in the arena of politics, and are thus denied the license which is still permitted to stump orators and political demonstrators.

This is obviously quite as it should be. The essence of successful military action lies in the controlled application of force, as Cromwell himself soon learned when he assumed his true rôle upon the field of battle. But it is, to say the least, ironical that the very men whose legitimate tasks necessitate the use of violence are those who, in peace time, are given the fewest opportunities of exercising it.

It follows that some means must be discovered of fostering the fighting spirit, which at the same time enables it to be kept under the maximum degree of individual control. And it is in the hope of

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(\*) See "Oliver Cromwell," by John Morley, p. 128.

solving this problem that I propose now to draw a comparison, and a contrast, between Oliver Cromwell and the great Confederate leader, Stonewall Jackson.

First, however, let us clear the air as far as possible by defining just what it is we are endeavouring to compare. Psychological comparisons so often become involved owing to the lack of any well-defined starting-point to which one can return when the argument threatens to become obscure. All sorts of abstruse philosophical factors are introduced, and the humbler foundations of human nature tend to become forgotten. In the end one is left with much the same sort of feeling as the prospective buyer of a new motor-car, who is beguiled with highly coloured descriptions of its upholstery and external fittings, but is told nothing of the make, or the mechanical efficiency, of the engine.

In this article I am going to reverse the usual process and begin by considering the engine, *i.e.*, the unconscious mind. And, to simplify matters still further, I propose to divide the mind arbitrarily into three levels, which I have borrowed from McDougall's "Social Psychology."

Temperament is the first of these levels, and it is entirely physical in composition. It is dependent upon the functioning of the bodily organs and the general functional peculiarities of the nervous tissues. It may be altered by changes in environment—*e.g.*, disease, temperature, food, but not voluntarily.

The next level is represented by disposition. It is the sum of the inherited instincts of an individual and is, therefore, emotional in character.

Finally we come to character, which is a compound of disposition and temperament, formed under the influence of environment and the guidance of intelligence, *i.e.*, reason.

Now let us return to Cromwell and Jackson and compare them at each of these three levels in turn.

In temperament both men were inclined towards the melancholic, and the common cause of this tendency, we may suspect, was constitutional weakness. In Cromwell's case it was an affliction of the throat. With Jackson it was a tendency towards consumption, and an obscure disease of the stomach, which subsequently also affected his eyes.

It may seem absurd to bother about these intimate physiological details, but the fact is they have a more important psychological bearing than was at one time suspected. Indeed, if Dr. Adler is anywhere near the truth with his theory of the inferiority complex, we shall have to re-orient our ideas somewhat concerning the relationship between mind and matter. Ambition is, in his opinion, usually an attempt to compensate, by an aggrandizement of the psyche, for some definite inferiority of the bodily organs; not, as so many of us would like to believe, a call from above to carry out a task which has been pre-ordained for us.

But I have promised to eschew philosophical abstractions, and for our purposes it is sufficient that Cromwell and Jackson were both men in whom certain constitutional weaknesses coincided with great personal ambitions.

At the next level—disposition—there are two instincts which demand our special attention, namely those of pugnacity and self-assertion.

Pugnacity, or the fighting instinct, is, according to McDougall, the next most powerful instinct to that of fear, and is not dependent upon any specific stimulus. It may manifest itself in any one of a variety of ways, and a comparison in these circumstances is not easy. Yet one can point to several striking similarities.

In the first place consider hereditary influences. Both men came of tough Puritan stock, with a streak of Celtic blood in their veins that dated back some four generations. Both in consequence possessed in great measure the stolidity and perseverance of the Anglo-Saxon, yet with a leavening—and a very considerable leavening—of the fire and impetuosity of the Celt.

In Cromwell the former element showed itself most markedly in the patience and fortitude with which he faced the gathering hosts of Leslie before Dunbar. "The enemy," he wrote to the Governor of Newcastle, "hath blocked up our way at the Pass at Copper's path, through which we cannot get without almost a miracle. He lieth so upon the Hills that we know not how to come that way without great difficulty; and our lying here daily consumeth our men who fall sick beyond imagination." But, he ended, "our spirits are comfortable, praised be the Lord," and when the opportunity came he struck with all his accustomed vigour and precision.

In Jackson we find the same spirit of endurance exemplified at the Antietam. It was about 11-00 a.m. on the morning of the 17th September, 1862. Hooker's, Mansfield's and Sumner's attacks had come to an end, and Jackson had re-established his line in the West Wood by a counter-stroke with McLaws, but he could do no more, and he had lost 5,000 men. For support there was but one small brigade, and over in the cornfields the overwhelming strength of the Federal masses was terribly apparent. Yet Jackson's heart never failed him, and when questioned by Dr. McGuire about transferring the field hospitals across the Potomac, he replied by pointing to the enemy and saying quietly, 'Dr. McGuire, they have done their worst.' (\*)

On the other hand, few others have possessed in equal degree the *elan* of Cromwell or Jackson in the attack. Cromwell, riding far out in advance of his troopers at Winceby (11th October, 1643), extricating himself from beneath his fallen charger as the *melee* joined over his head, and joining once more in the fight on a "poor horse" taken from one of his men, must have had just the same inspiring effect as Jackson when urging Flournoy's squadrons to the attack at Front Royal (23rd May, 1862), or leading his old brigade to stem the Federal rush at the hard-won victory of Cedar Run.

We may infer that both men thoroughly enjoyed a good scrap, and though by Jackson's time a higher commander had few opportunities left of joining personally in the thick of the battle, he was still near enough to be affected by it, as the following description, written by an eye-witness at Gaines' Mill, will show. "He (Jackson) was in a state of excitement such as I never saw him in, which transfigured his whole nature. His usual self-possessed, business-like air in battle had given place to a concentrated rage, by which his faculties were not confused, but braced. His face was crimson, the nerves of his chin and cheeks twitching convulsively, his lips purple from sucking a piece of lemon which he held in his hand and applied to his mouth unconsciously, his blue eyes blazing with a species of glare. He was riding hither and thither as if almost carried away with an uncontrollable impulse to dash into one or another part of his line of battle, but after a career of twenty or thirty yards he arrested his horse with a sudden jerk which almost threw him upon his haunches." (†).

(\*) See "Stonewall Jackson," by Lt.-Col. G. F. R. Handerson, p. 315.

(†) See "The Life of Gen. Thomas J. Jackson," by Sarah Nicholas Randolph, p. 198.

34 *Stonewall versus Ironside—A Comparison and a Contrast.*

Small wonder if such "concentrated rage" occasionally gave rise to acts, or expressions, of blood thirstiness which went beyond what reason would show the situation to have demanded. The true biological aim of the fighting instinct is no doubt to enable us to overcome resistance, and killing for the mere sake of killing finds no place amid the codes of civilized warfare. But the unconscious mind is not concerned with the laws of biology or the conventions of civilization. It knows no more of morality than a motor engine knows of the rules of the road. Its function is to supply the human machine with nervous energy, and provided that a certain stimulus is applied, it will respond just as surely and just as inevitably as a motor engine will respond to the action of the accelerator pedal.

If, therefore, regrettable incidents sometimes occur, it is not always the driver—here the character of the commander—that merits the blame. Every motorist who knocks over a pedestrian is not necessarily a criminal, and likewise every soldier who slays an unresisting enemy is not necessarily a blood thirsty barbarian. There are all sorts of extenuating circumstances to be considered, not the least of which is the general standard of morality and chivalry existing at the time, or in the place, at which the so-called 'crime' has been committed.

On these grounds it is hardly fair to make unfavourable comparisons—as some have done—between Jackson and Cromwell on the score of the latter's occasional excesses during his campaign against the Irish. It may be, as Dabney believed, that Jackson's career 'could never have been marked by a massacre like that of Drogheda' (\*), but to the unbiassed observer it is a little difficult to differentiate between the man who, "being in the heat of action...forbade them to spare any that were in arms in the town," and the man who, when asked how he intended to cope with the overwhelming numbers of the enemy who confronted him at Fredericksburg, replied with vehemence, "Kill them, sir ! Kill every man !"

Having no concern here with philosophical niceties, we may rest content with the statement that both men were born fighters, and that, if Cromwell indulged more often in an excessive use of physical force, it may have been due partly to his more intimate participation in the battles which he fought, and partly to the cruder standards of morality which prevailed in his times.

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(\*) See "Life and Campaigns of Lieut.-Gen. T. J. (Stonewall) Jackson," by R. L. Dabney, D. D.

Let us now consider the second instinct referred to above, that of self-assertion. This is a rather primitive instinct, which is particularly prominent in children, and young nations. Its action is often enhanced by an exaggerated conception of one's own knowledge and ability, and its intensity tends to diminish with the acquisition of wisdom and the development of a sense of humour.

Nevertheless it has a very definite value for the would-be leader of men, and particularly for that type of leader to which both Cromwell and Jackson belonged. Mr. Bartlett, in his very interesting book, "Psychology and the Soldier," has shown that all leaders may be classified in one of three types, which he has called the Institutional, the Dominant, and the Persuasive. These names, I think, explain themselves, and one should have no difficulty in deciding in which category Cromwell and Jackson should be put.

The dominant type of leader, says Mr. Bartlett, relies for his powers of command on swiftness of decision and willingness to relieve others of responsibility. He may mix with his men or hold aloof, and he is not necessarily dominant in all kinds of groups. His power must usually be backed by some specialized efficiency or skill, and hence tends to decline with the increase in complexity and specialization of society. (\*)

This description fits Cromwell and Jackson exactly. They were neither of them typical of the society in which they lived, and neither of them made friends easily. Yet both won the respect, and to some extent the affection, of their fellows by their obvious sincerity and the forcefulness of their personalities. Cromwell too was always at home in the company of his troops, with whom he would play uncouth practical jokes; but Jackson, though he could put a man at his ease while instructing him in his professional duties, normally held himself aloof.

To achieve success under such conditions obviously demands implicit confidence in one's own powers, and this both Cromwell and Jackson had, though they achieved it by somewhat different methods. Cromwell used the forces of religion alone to bolster up his self-assertive instinct, and by the end of his career had even come to identify himself with the Deity. Thus, when dismissing Parliament on the 22nd January, 1655, "because it did not agree with the soldiers as to

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(\*) See "Psychology and the Soldier," by F. C. Bartlett, M. A., p. 149.



the manner in which the state should be ruled" (\*), he concluded a long speech with the words, "And this I speak with more earnestness because I speak for God, and not for men." And again, in December, 1656, he put the matter even more clearly in a letter to the Mayor of Newcastle, advising him and his aldermen not to be too intolerant towards other Christians. "Having said this," he wrote, "I, or rather the Lord, require of you.....etc."

Jackson's self-assurance, on the other hand, was of a more practical, and less fanatical kind. From the day when, as a child of eight, he walked out of his Uncle Brake's house, in resentment of the latter's sternness, and tramped eighteen miles on his own to the house of another uncle, Cummins, his spirit grew in self-reliance and independence. "Uncle Brake and I don't agree," he had explained to a cousin at that time. "I have quit him, and shall not go back any more." And that was typical of all his subsequent decisions. He did not make a fuss about it, or call upon the Deity, as Cromwell would have done, to justify his actions. He often prayed to God for guidance while making up his mind, but once his decision had been made he was prepared to accept the fullest responsibility. Comparing him with Lee, Col. Henderson was of the opinion that "in one respect (he) was Lee's superior....He was made of sterner stuff. His self-confidence was supreme....Lee, on the other hand, was oppressed by a consciousness of his own shortcomings. Jackson never held but one council of war. Lee seldom made an important movement without consulting his corps commanders.....(and) lost the battle of Gettysburg because he allowed his second-in-command to argue instead of marching." (†).

We have here got out of the sphere of the unconscious mind and must go back for a moment. Our study up to date has shown us that Cromwell and Jackson were both men in whom a great personal ambition was favoured by the ample development in them of the two instincts of pugnacity and self-assertion. But the question at once arises, can some instincts be developed at the expense of others, or must all be increased in the same proportion?

To this question psychology has not yet been able to give a definite answer, but the general trend of opinion seems to be that nervous energy cannot be specialized in any particular form. And

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(\*) See *Oliver Cromwell*, by G. R. Stirling Taylor, p. 309.

(†) See "*Stonewall Jackson*," by Lt. Col. G. F. R. Henderson, p. 601.

this is borne out by what we know of Cromwell and Jackson. The former, according to Baxter, a contemporary, was "of a sanguine complexion, naturally of such a vivacity, hilarity, and alacrity, as another man is when he hath drunken a cup of wine too much"; while of Jackson it has been said that "his passions were strong; his temper was hot. . . . and if in his nature there were great capacities for good, there were none the less, had it once been perverted, great capacities for evil". (\*)

This being so, it is obvious that some form of equilibrium is necessary if advantage is to be taken of a powerful unconscious mind. This in turn implies some form of mental discipline, and it is interesting to see how this may be arrived at.

The word discipline indicates a conscious act of self-control, but a careful analysis will show that this is not always essential to a state of mental equilibrium. It is quite possible for one instinct to neutralize another without any intervention on the part of consciousness. In fact we know that even insects, such as bees and ants, are capable of achieving a high degree of social discipline.

If, therefore, both Cromwell and Jackson were great disciplinarians, that is no proof of their intellectual or moral development. Fear is perhaps still the most powerful of all disciplinary influences, and Jackson himself once said, when excusing himself for refusing a proffered glass of brandy, "No. I am much obliged, but I never use it; I am more afraid of it than of Federal bullets."

It is at least probable, then, that it was the fear of their own strong passions that prompted the severity of the discipline exercised by Cromwell and Jackson, not only over themselves, but also over their subordinates. In their own case experience had shown that it was necessary, and if the majority of their subordinates might have been ruled with a lighter hand, they nevertheless accepted willingly enough the standards set up for them by their leaders. It is in the nature of man to worship a leader, and there are still many who would prefer a summary punishment, which they knew to be excessive, at the hands of a leader whom they trusted, to a just sentence obtained after a lengthy deliberation by a body of legal experts.

So we are led to this conclusion. That Cromwell and Jackson were successful in battle because they were endowed by nature with

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(\*) See "Stonewall Jackson", by Lt.-Col. G. F. R. Henderson, p. 610.

a powerful fighting instinct; that they were great leaders of men because they had great ambitions, fed by a powerful instinct of self-assertion; and that they were great disciplinarians because they possessed unconscious minds which, though powerful, were naturally well-balanced.

It is at this point that our comparison comes to an end, and the contrast begins. Already we have seen how Jackson rose superior to Cromwell in the conscious exploitation of his self-assertive instinct, and it is along these lines that the contrast must be developed.

It is not a question of intelligence, if by intelligence we mean educability, or the power to profit by experience. That is a faculty of the unconscious mind, which is possessed by many animals in a high degree, and was certainly a marked characteristic of Oliver Cromwell.

But what Cromwell lacked was intellectual ability, the power of concentrated thought, and conscious criticism. So long as he confined himself to soldiering all was well, because he was naturally well adapted to fighting, but he never seemed able to make a just appreciation of his own abilities, and was continually being side-tracked by his impulses into unprofitable religious and political controversies.

With Jackson, however, it was quite different. He early recognized his own military ability, and consciously set about improving it. Some time after joining the Virginia Military Institute (1851) he declared to a friend that "he knew war to be his true vocation, and that his constant aim in life would ever be the career of a soldier," and although by 1854 he had begun to "listen to no other than a sanctified ambition," he still somewhat naively reserved to himself the right to fight for his country if it were assailed "in such a way as to justify an appeal to defensive war in God's sight." (\*) At all events he did in fact continue to develop his military talents to a quite extraordinary degree, and a few words must be said as to the methods he adopted.

Like Cromwell, he was not a facile thinker, but unlike him, he displayed from the first great powers of application. Better still, he was quick to appreciate the value of mental concentration. "No one I have ever known," said a cadet who shared his barrack-room

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(\*) See "Life and Campaigns of Lieutenant-General T. J. (Stonewall) Jackson," by R. L. Dabney, D.D., p. 70.

at West Point, "could so perfectly withdraw his mind from surrounding objects or influences, and so thoroughly involve his whole being in the subject under consideration."

While at Lexington, he still further developed these powers by his habit of sitting for an hour every evening with his face to the wall, reviewing in his mind the lessons he had read over in the morning. And subsequently he was able to apply them in all sorts of useful ways. He learnt to do without maps in the field, for example, making his study of them in advance, and retaining in his imagination the topography of the country over which he was about to operate.

Again, "during his campaigns he would pace for hours outside his tent, his hands clasped behind his back, absorbed in meditation, and when the army was on the march, he would ride for hours without raising his eyes or opening his lips." And, said Col. Henderson, "it was unquestionably at such moments that he was working out his plans, step by step, forecasting the counter-movements of the enemy, and providing for every emergency that might occur." (\*)

Nor did he alter his methods even in moments of stress and emergency. Shortly before the battles of Port Republic and Cross Keys, the train in which he was returning from Harper's Ferry to Winchester was stopped by a staff officer, riding at a gallop across the fields. Jackson was then informed that the 12th Georgia had been driven from Front Royal, burning the stores, but not the bridges, and that Shields' division was in possession of the village. At this he "smiled grimly, but made no reply. His eyes fixed themselves apparently upon some distant object. Then his pre-occupation suddenly disappeared. He read the dispatch which he held in his hand, tore it in pieces, after his accustomed fashion, and, leaning forward, rested his head upon his hands, and apparently fell asleep. He soon roused himself, however, and turning to Mr. Boteler, who tells the story, said "I am going to send you to Richmond for reinforcements...." (†)

All this was no mere theatricality on Jackson's part. He realized, as Mesmer and Coue and many others have realized, that the unconscious mind requires these little aids to concentration. He was in fact, like so many other great commanders, an exponent of the

(\*) See "Stonewall Jackson", by Lieutenant-Colonel G. F. R. Henderson, p. 482.

(†) See "Stonewall Jackson", by Lieutenant-Colonel G. F. R. Henderson, p. 347.

modern doctrine of auto-suggestion. He seemed to understand intuitively—what the psychologists are now beginning to teach in their text-books—that will-power and instinct are really synonymous, and that the true function of intellect is to control the will by concentrating the attention on the particular instinctive outlets that are suitable to the occasion. “The idea of a movement,” writes Charles Baudouin in his book, “Suggestion and Auto-Suggestion,” “gives birth to this movement,” and Jackson put the same principle into effect when he directed his imagination upon the military situations which he hoped to bring about. “You can be what you resolve to be” was one of the maxims which he drew up for himself while a cadet at West Point, and history was to prove him a true prophet.

Here, then, lies the main difference between these two great men. Not in ambition, nor in will-power, nor in courage, nor in morality, but in that controlled use of the imagination which is the hall-mark of reason and the higher levels of mental activity. Cromwell had got on well enough as a soldier without it, because in his day the evolutions of war were comparatively simple. Jackson, having to conduct his battles from a greater distance, realized its importance and went all out to cultivate it, but could not, of course, avoid some failures. At McDowell his impatience robbed him of a decisive success by causing him to push on his advanced guard too far ahead of his main body, and on more than one occasion it led him into expressions of petulance before his subordinates, and even on one occasion disrespect to his seniors.

His self-reliance and aloofness, too, sometimes developed into an exaggerated secretiveness, which irritated his subordinates, and on at least one occasion—Culpeper Court House, 8th August, 1862—was directly responsible for the failure of his plans.

These failures were, of course, as nothing beside the wonderful victories which he achieved, but I mention them because they were the result, not of ignorance of the technique of war, but of an incomplete understanding of human nature. For this Jackson himself was in no way to blame. On the contrary, one cannot but marvel at the depth of his knowledge, and the soundness of his methods, when one remembers how little he had in the way of expert guidance.

To-day, however, the situation is quite different. In the last seventy years the science of psychology has made enormous strides,

and we could, if we wished, start at a point which Jackson could only reach after years of patient endeavour. But so far little has been done to avail ourselves of the opportunities which science has put in our way. We still seem to prefer the venerable platitudes, and time-worn catch phrases, with which our forefathers went to battle.

This is not quite true perhaps. Our Training and Manceuvre Regulations have, in a timid sort of way, acknowledged the value of a study of psychology. But I must be allowed my little peroration, and besides, it is not every officer who pays heed to the encouragements proffered in official text-books. In this essay I have, I hope, given some practical demonstration of how a knowledge of psychology may help us to improve ourselves as soldiers. One cannot, of course, make bricks without straw, and one cannot make a soldier without a well-developed fighting instinct, but presumably most people join the fighting services out of a love of adventure, and, given the interest and the knowledge of how to apply it, there is little in war that is beyond the capacity of the ordinary intelligence.

In short, war is "a contest between the will of the opposing commanders", (\*) and effective will-power, as we have seen, is the result of concentrated attention.

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(\*) See. F. S. R. II, 1924, Sec. 10. 1.

## A PROPHECY.

By

“LEE ENFIELD.”

When the writer was considerably younger than he is now, and when at the Staff College before the war, it fell to his lot, the common lot of all students, to give a lecture in his second year. In his first he had distinguished himself by propounding a scheme which involved the seizure of a friendly country, the expropriation of the majority of its inhabitants, and its colonization by British (as opposed to Indian) settlers with a view to producing and maintaining a reserve for our British Service in India. The object was admirable, but the method of attainment suggested was regarded by authority as somewhat high-handed. Having achieved more notice than was altogether desirable the writer endeavoured to choose a safer subject for his second year. This was found difficult, as lectures on matters of common knowledge invited and received instructed criticism on all sides. On the other hand, to combine originality with safety is never easy. However, by chance a subject presented itself.

In the year 1912 the Russian threat from the north was far more real than it is to-day. Their railway system was spreading towards the limits of Caucasia, towards Persia and Afghanistan. The second named country had been divided into spheres of influence, three in number, of which by far the smallest was the south-eastern region assigned to Great Britain. It seemed only a question of time before Persia became the object of the next piece of railway enterprise from the north, and such a railway could have been brought within five hundred miles of the Baluchistan border without infringing any rights, either ours or Persia's. Like a lightning conductor, as the late Lord Curzon once remarked, stood out the Nushki line from Quetta. The two \*poles would inevitably attract each other and a trickle of trade would be the result. The camel caravan would be replaced by wheeled traffic which would demand and eventually obtain roads, and rail connection would finally be established. The reader will note that a Russian advance by this route would have its flanks perfectly

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\*The lightning conductor is now three hundred and fifty miles longer and correspondingly more dangerous.

secure from interruption save from local marauders. Far from the Afghan border on the one side and the Persian Gulf and British sea power on the other, a line of advance would be obtained by a powerful potential enemy which was out of our reach till it arrived at our frontier. We on the other hand would be forced to fight in a remote corner of the Indian Empire with our right flank and line of communications open to attack from a neighbour fairly certain to take advantage of any difficulties which might beset us.

To be sure Duzdap is not exactly the main entrance of India, and a vast waste of desert separates it from the rich and fertile plains. Even so the prospect of fighting a campaign in that region is not exactly attractive.

No country except an island, and not always then, with a highly developed railway system can expect to remain cut off from those of neighbouring countries. Junction is inevitable and in India's case no less than in others.

It seemed in 1912, as it will seem in the future, that India would be well advised to think out her policy in this matter before hand, to select and encourage lines of approach which are most convenient to herself and which are capable of some sort of protection. If such a line could also act as a connecting link with some other portion of the Empire, a further advantage would be achieved. A railway connection between Egypt and India was the natural corollary of this line of thought. The fact that such a railway would traverse two entirely foreign countries and would act as a powerful competitor with a line already under construction in one of those countries and would have one terminus in a practically independent country, (although under our protection) was not allowed to interfere with the idea.

There were other difficulties. There were at least three deserts, if not four, to cross, including the task of penetrating into the little known heart of Arabia. There was a distance of 2,800 miles of track to be laid; there was the immense drop from the Sinai Peninsular into the Akaba rift which runs from the gulf of that name to the southern extremity of the Dead Sea, followed by a rise of about 4,000 feet to get on to the Arabian plateau; there was the little difficulty of bridging the Shat-el-Arab near Basra, of crossing or skirting the marshy country surrounding that place, of running along the desolate shores of the Persian Gulf, of crossing the innumerable river beds



which converge in the direction of Bunder Abbas, beds periodically filled with wild spates, of choosing a route over the hilly country which forms the southern section of Baluchistan, and, finally, even the approach to the terminus, Karachi, was by no means plain sailing. There was the fact that nine-tenths of the area to be crossed was practically unpopulated and that the line would attract very little local traffic and scarcely any trade. The only class likely to use it was the passenger and for two-thirds of the year, unless he travelled in cold storage, he was more likely to arrive dead than alive. Furthermore an uninterrupted connection by sea existed between Egypt and Karachi, the more rapid though far more expensive land route would have no chance against its more leisurely rival for the carriage of heavy goods. Again there remained the enormous difficulty of water and of labour; it was an unfortunately worded allusion to the latter which nearly cost the writer his commission. The practical utility of the scheme seemed small and yet it had a certain attraction.

As an alternative to the Russo-Trans-Persian line it seemed for preferable and the construction of another link between Egypt and the Indian Empire appeared to have advantages of a decided nature. Railways through neutral territory have been of great assistance to the Empire in the past and will be in the future. Of the former, the Beirailine in South Africa need only be mentioned. By this route a considerable number of mounted troops entered Rhodesia to take part in the Boer War 1899-02. In the future the journey to Northern Rhodesia and Nyassaland, and to a lesser extent to Southern Rhodesia, will be actually shortened by 1,700 miles sea journey, and the land journey of 2,000 miles by rail will be halved. All this will be done by the Benguella Line which traverses Angola from West to East joining up with the Cape to Katanga line in the Belgian Congo near Kambove, whence a further 200 miles by rail takes the traveller into British Territory at Bwana. This line, it is understood, is now operating, bringing the British settler nine days nearer the homeland.

In spite, therefore, of the innumerable difficulties which have to be faced, it may be worth while to examine the route in detail. The point of junction with the existing Egyptian lines was chosen as Port Said and here, to start with, a considerable engineering difficulty was encountered in the shape of a swing bridge over the canal. Any other arrangement must be of a makeshift variety and as such no use

to a great scheme. The bridge would not need to be either very large or very high and numerous examples of this form of construction exist all over the civilized world. Hence the coast of the Mediterranean was to be followed as far as Gaza and then the line took a southeasterly trend towards Maan a station on the Hedjaz railway. This necessitated a drop from the level of the Sinai desert, which rises towards the south, down to the Akaba Wadi which not so many years ago formed an arm of the sea which had its termination in the Dead Sea then many times its present size. From Maan the route involved a steady climb up to nearly 4,000 feet, the height above sea-level of the Western Arabian plateau, and thence in an easterly direction to a remarkable though little known place named El. Jof. This region boasts a population of some 40,000 and comprises a large area of arable land rather than a number of scattered oases. Hundreds of caravans of camels laden with dates come into Baghdad from this direction, and it is likely that a brisk fruit trade would spring up if transport difficulties could be overcome. In addition to tapping a rich area, this alignment was purposely chosen well to the south in order to avoid complication with the Turk.

From El Jof the district of El Udain was crossed in a northeasterly direction, the route aiming for Baghdad. Very little is known of this part of Arabia but it is suspected to contain some large fertile tracts. From Baghdad the line followed the Euphrates to Basra where the greatest of the engineering feats of the whole scheme had to be carried out, namely—a huge bridge over the Shat-el-Arab with a swing bay over the middle of the stream to allow of the passage of ocean-going steamers. Persian territory was entered and the Karun crossed. Something of a detour was here found necessary to avoid the marshy and low-lying country on the coast of the northern end of the Persian Gulf. For the next 500 miles the country, though inhospitable and rocky, presented no great obstacle to railway construction, the ranges of hills, curiously enough, running parallel to the coast; the line therefore could follow the valleys within easy reach of the coast with an occasional tunnel to pass from the head of one valley to that of the next further east. Passing through Bushire the selected route reached Bunder Abbas at the entrance of the Gulf, and a difficult section was encountered as has already been mentioned. Very heavy bridging would be necessary in this region; bridges moreover which would be bone dry twenty-nine

days out of thirty and yet which could not be dispensed with. A course which skirted the foot-hills, though longer than a line along the coast, would be less costly as it would cross the streams where their beds were narrow and deep, thus diminishing the length of the bridges. Hence the railway would follow the coast entering British territory near Ras Juni. The Mekran coast is hardly an Indian Riviera, but once within our own territory the necessity for hugging the coast line ceases and the easiest line of approach to Karachi could be selected. In the whole journey, with the exception of Western Arabia, it was never necessary to rise more than 1,500 feet above sea level. Again, with the exception of the Arabian and Palestine Sections, the line was never out of sight of salt water or of a great river, and, generally speaking, omitting the Shat-el-Arab bridge, engineering, as apart from labour and water, difficulties were of a minor nature.

No attempt was made to work out the cost of the scheme in detail. It appeared to be enormous. The obvious advantage of a double line could only be obtained at a greatly increased price. At the modest computation of £ 10,000 a mile, standard gauge, the cost amounted to twenty-eight million sterling. Additional to this came the rolling stock, say fourteen hundred heavy engines and 28,000 trucks and wagons of all sorts costing another twenty-five million sterling, a grand total of fifty-three million pounds. Obviously this was prohibitive in the first instance. This, however, would not interfere with the construction of the more paying sections of the line as a preliminary measure, provided that the alignment selected was in conformity with the general plan.

At an average speed of thirty miles per hour the journey of an express could be performed in ninety-three hours, less than four days. The devout Mussulman could find himself on the Hedjaz line bound for Medina and Mecca four days after he left Karachi, and without ever putting his foot on board ship to brave the dangers of the dreaded "kala pani." Can anyone doubt that this line would quickly attract a large percentage of the pilgrim traffic from India to the 'Holy Places'?

These points were embodied in a lecture illustrated by a map similar to that which is appended to this article, and the various pros and cons brought out. Prominent amongst the latter were water and labour. Lack of water, on the Arabian section especially, promised to be a matter of great difficulty. At the same time deserts in the

past have never presented an insuperable obstacle. An admirable example of this is the railway which connects West Australia with the remainder of the sub-continent. Doubtless fifty years ago this would have been, and was, condemned as a feather-brained scheme. Artesian boring solved the problem, other methods have been successful elsewhere.

The provision of labour was not so easily dismissed. The Arab is disinclined to manual labour; the alternative of imported coolie labour was both costly and inconvenient. For many hundred miles it would be the case of the Arab or nothing. In Arabia much of the labour of the tribe is performed by the "weaker" sex and in places even these are unobtainable. An unhappily worded phrase on this subject caused an outbreak of ill-timed laughter from the audience and drew down on the writer's head the wrath of the instructor in charge. He didn't like the scheme, his practical mind revolted at the idea of a student soaring into the clouds of speculative theory when so many urgent every day problems remained for consideration and solution. He turned and rent the lecturer and the lecture to tatters and when he had finished there was very little left. He concluded with words to the following effect. "The proposal which is of a wild-cat nature has been worked out with much misguided ingenuity. Putting aside for the moment its entire impracticability, I consider that it possesses no advantages whatsoever. It is a waste of time even discussing it. A connection between Egypt and Karachi other than by sea is unnecessary, it is uneconomic, no one would dream for a moment of financing it, the international difficulties are practically insuperable. It would be bankrupt in peace and useless in war."

This authoritative pronouncement was made in the year of grace 1913, and by an acknowledged expert. A bare sixteen years have elapsed including four in which humanity was too busy cutting each other's throats to pay attention to trans-continental traffic problems, and yet, over that very region, operating between the same two termini, Egypt and Karachi, is a new transport service which brings India within seventy hours of Egypt. Surely an extraordinary coincidence. To be sure, the track crosses Arabia rather further north than that selected by the writer. Otherwise the two routes are never out of sight of each other.

It must be confessed that the writer did not visualise an air-mail any more than did his critic, but more remains to be said. For

every overland air-route no matter where it lies, a chain of depots for staging, hotel, petrol, lubrication, repairs and other purposes must be instituted. These depots are maintained and victualled by sea or by land and if by land must be connected by a track. The track will soon become a road, a metalled road and then in turn a railway.

Already several sections of the Cairo-Karachi railway, totalling over seven hundred miles, *i.e.*, a quarter of the whole distance, have come into existence. They are not of the same gauge it is true. The Kantara-Gaza section, the trans-Palestine, the Euphrates valley sections are already working. A line from Karachi westwards towards Jask has been surveyed for over four hundred miles. Its extension to Bunder Abbas is the natural sequel. Any scheme to make a pipe line from the oil-fields of Iraq to the Mediterranean coast is likely to be followed by a railway, the extension of the Euphrates valley line to the Karun and Mohammerah is also a likely contingency.

There remains the Persian section and this, as has been mentioned, is of ordinary difficulty from a constructional point of view. Moreover, this region is served from the sea only with the greatest difficulty. Owing to the shallowness of the water, ships have to lay out as far as five miles and all goods transferred to lighters, a laborious operation at all times, a hazardous one during the monsoon or stormy weather. An alternative line of approach would therefore be welcomed.

Persian lines, following Australia's precedent, are likely to be built in the first place into the interior but it is quite inevitable that, again following Australia's lead, a coast line will be constructed, and then will the Karun—Bunder Abbas connection materialise. Of course the differences of gauge and many other delicate international questions will have to be adjusted, but that is a matter of time.

It is not contended that the time is ripe for the initiation of this scheme. All that is suggested is that this great artery will materialise sooner or later, in some shape or form, and on one or other of the many various routes which could be selected. In these circumstances it is essential that the advantages and disadvantages of the alternatives be carefully weighed and that when the concrete proposal is put forward to link Egypt and India by rail, the necessary clear-thinking and consideration will have been given to the problem, for by this alone can a sound strategic and commercial alignment be secured.

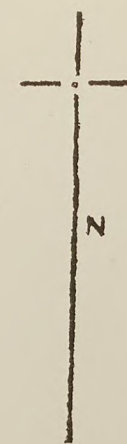


# CAIRO TO KARACHI.



- Existing Railway
- - - Proposed Cairo to Karachi Route
- ..... Frontiers.

0 50 100 200 300 miles



18.  
15.7.29.





# THE PROTECTION OF MECHANICAL TRANSPORT CONVOYS IN WAZIRISTAN DURING WAR.

By

MAJOR W. E. GRAY, D.S.O., M.C.

## *I.—Necessity for protection by patrols or escorts.*

The lack of railways in Waziristan necessitates the use of convoys for the transport of supplies to the fighting troops. Where roads permit such convoys will normally consist of mechanical transport, pack transport only being utilized where the nature of the country renders the use of lorries impracticable.

It is evident that the success of operations is dependent upon the maintenance of secure lines of communications and it is therefore necessary to consider the methods by means of which such security may be adequately obtained.

In recent campaigns in Waziristan permanent picquets were utilized to protect the roads which were the channels of supply. This method of obtaining security, although effective, necessitates the employment of very large numbers of troops and especially with the increased and ever increasing length of road to be guarded, it is not probable that adequate forces would again be available for this purpose.

The method of troops close picquetting routes to be used by convoys, sector by sector, is very slow and would require a large amount of M. T. to transport them from sector to sector to enable the convoy to move quickly.

The protection of convoys would therefore normally be carried out either by escorts moving with the convoy itself or by patrolling, these duties in either case being performed by motor mounted troops.

## *II.—The advantages and disadvantages of patrolling.*

The advantages and disadvantages of patrolling as a method of protecting convoys may be summarized as follows:—

### *Advantages—*

- (a) A patrolling force possesses greater powers of initiative when not hampered by the necessity for moving with a column of non-fighting vehicles.



- (b) Armoured cars when patrolling can make use of their speed, whereas when moving with a convoy they are limited to the pace of its component vehicles.
- (c) The element of surprise is introduced as the enemy does **not** know where or when the patrol will make an appearance.

*Disadvantages—*

- (a) It is easy for hostile parties to conceal themselves from the observation of patrols moving along the road and, therefore, the fact that a patrol has passed over the road is no guarantee of the absence of enemy.
- (b) Opportunities must occur when hostile tribesmen, by observing the passing of a patrol, will be able to attack a convoy in comparative security, since they will be aware that the patrolling troops are not in the vicinity.
- (c) The greater the length of road, the less the security afforded.
- (d) The moral effect both on the enemy and on the drivers of the convoy of the actual presence of an escort can hardly be exaggerated.

It may therefore be concluded that, although patrols may afford adequate protection over comparatively short stretches of road and in areas where the probability of attack by considerable bodies of the enemy is not great, under normal conditions it will be preferable for a convoy to be escorted by motor mounted fighting troops.

*III.—Factors affecting the problem of escorting convoys.*

Before considering the best method of escorting columns of motor lorries, it is desirable to consider certain factors affecting the problem and to endeavour to formulate certain rules regarding command and responsibility, the observance of which is essential in order that unnecessary dangers and difficulties may be avoided.

These factors are as follows:—

- (a) The length of a M. T. convoy is very considerable. In the case of a column of 40 lorries it is in practice often over two miles in length, owing to dust, etc. It is therefore clear that if the escort is small—for example a sub-section of armoured cars—it is possible for an enemy to inflict considerable damage on part of the convoy before the escort can learn of the attack and take action.

- (b) The likelihood of the temporary or permanent break-down of one or more lorries is considerable. It is impossible under war conditions either to leave a broken down lorry unprotected or to detach part of the escort to guard it. It is therefore essential that the whole convoy should halt until either repairs have been effected, the disabled vehicle taken in tow or orders given for it to be abandoned.

To ensure that the escort and the remainder of the convoy does not become detached from a broken down vehicle, it is essential that information regarding a break-down should reach both the O. C. escort and the leading lorry without delay so that the column may be halted and steps taken for its protection, until it is again ready to move forward.

- (c) Periodical halts for examination of vehicles, for meals for drivers, etc., are necessary.
- (d) The width of the road in many parts of Waziristan is such that there is often only just sufficient room for two motor vehicles to pass, and insufficient space for a motor vehicle to turn except with difficulty and after considerable delay.

Definite crossing places for convoys (especially 3-ton vehicles) must be fixed wherever possible, the use of which should be varied so that hostile forces could not prepare an ambush or plan an attack on one particular crossing place.

- (e) The normal characteristics of the terrain are such that movement off the road for wheeled motor vehicles is impossible. Therefore, in the case of an armoured car escort, offensive action against a dismounted enemy can, in many places, only be taken by fire from the road, the effect of which is likely to be very definitely limited.
- (f) The number of armoured cars likely to be available is limited and it is necessary that reasonable opportunities are provided for their repair, maintenance and upkeep.

#### *IV.—The command of convoys and escorts.*

(a). The duties and responsibilities of both the Commander of the Escort and the Convoy are laid down in F. S. R. II, para. 62. The safety and efficiency of the convoy is entirely dependent upon the

close co-operation and liaison which must be maintained between these two officers, and any doubt as to which of the two is responsible for any particular duty may easily lead to disaster.

(b). It cannot be too strongly stressed that whenever it is possible a British officer should be in command of the Escort and a British or Indian officer in charge of the Convoy, circumstances may arise, especially in the case of small convoys, when such officers are not available but it cannot be considered satisfactory that the responsibility of either of these commands should be entrusted to a N.-C. O.

(c). The senior combatant officer with a convoy will command both the transport and its escort and should be responsible for the following:—

- (1) Maintaining the closest possible liaison with the O. C. Escort or O. C. Transport as the case may be.
- (2) Informing the O. C. Escort or O. C. Transport of the average speed at which the convoy will move and what lorry interval is to be maintained.
- (3) Informing the O. C. Escort or O. C. Transport of the approximate times at which halts will be made for inspection of vehicles or for feeding of personnel.
- (4) Maintenance of road discipline on the part of all vehicles of the convoy.

NOTE.—The stricter the road discipline, the less the danger in the event of hostile attack. Points which require special attention are as follows:—

The maintenance of correct distances between each individual lorry, use of correct road signals, driving on the correct side of the road whereby a clear space is left for communication up and down the column, and the absolute prohibition of the passing of one lorry of the convoy by another.

- (5) Informing all concerned immediately of any break down which may occur, of the time for which a halt for this reason is likely to be necessary, for the halting in close formation of the convoy until a re-start may be possible and for dealing with the broken down vehicle.
- (6) He should issue orders to all personnel under his command as to the action to be taken in the event of an enemy attack. In order that he may effectively carry out these duties, the O. C. Convoy must be mounted in an independent vehicle and not travel on one of the lorries of the convoy, since, it is essential that he should frequently pass up and down the column. A motor-cycle, preferably with a side-car, is the most suitable vehicle at present available for this purpose as it is speedy, requires little space and can be quickly turned.

- (7) He should arrange for the selection of suitable halting places where adequate protection can be afforded to the column by the escort. When possible long halts should be made only under cover of permanent posts manned by dismounted troops.
- (8) He should arrange for efficient inter-communication throughout the convoy and escort.
- (9) If a very serious mechanical break-down occurs he would be responsible, after giving due consideration to the recommendations of O. C. Escort or O. C. Transport, and to the exigencies of the tactical situation, for the decision as to whether the vehicle should be abandoned or not.

*V.—The composition of escorts.*

The normal escort to a mechanical transport convoy has hitherto consisted of armoured cars. In this connection there are however certain points which require consideration.

(a). Armoured cars whilst producing considerable moral effect and possessing mobility with the capacity of developing great fire power, also have the following definite limitations :—

- (1) A fighting sub-section of armoured cars is manned by a total strength of nine men. While the crews remain under cover of their armour, it is an extremely powerful sub-unit, but if any members of the crew are forced to dismount—for example in order to clear a block in the road—and casualties occur, the small number of the personnel is a definite and serious limitation.
- (2) Reference has already been made to the fact that in Waziristan the present type of four-wheeled armoured car is almost always forced to operate on roads, since the character of the country is such as to render cross country movement generally impracticable. Their offensive power is therefore limited to fire action from the road which in the case of an enemy well concealed in hilly country, may prove insufficient to dislodge him from his position, so every endeavour should be made to keep the enemy's heads down whilst the convoy passes.

- (3) It is essential that the two armoured cars of a sub-section should be mutually supported. This entails their separation by only such a distance as will permit of speedy inter-communication. A sub-section of armoured cars is, therefore, not an adequate force for the protection of a long convoy.
- (4) The only forms of inter-communication at present universally available for armoured cars are flag signals and despatch riders. Of these, the former necessitates the cars being within view of each other, whilst the latter are liable to be shot down.

The provision of W. T. or R. T. communication between armoured cars would obviate the difficulty. Sanction has been granted for the provision of one W. T. and R. T. set per sub-section, but even when these have been fitted there will be no means of W. T. or R. T. inter-communication between the cars of the sub-section.

(b). The paucity in strength of the armoured cars allotted for protective duties cannot be overlooked. Practically all supplies must be transported by M. T. convoys, and the length of the road over which convoys may be required to move is some 200 miles.

Such convoys will almost invariably require escorts and it is difficult to see how this duty can be adequately performed by so small a force of armoured cars, especially when the necessity for maintenance and repair of the vehicles is taken into consideration.

(NOTE.—This paucity of armoured cars was exemplified during the closing months of 1928, when with three sections available it was found very difficult to cope with essential duties, although the conditions were not then of actual war, when the demands for the service of armoured cars would be greatly increased).

The extension of existing roads will increase escort duties and the substitution of six-wheeled armoured cars for the present type will not minimize but rather add to the difficulty of the problem, since the presumed increased cross-country capabilities of these vehicles may render their employment with fighting columns feasible.

A suggestion regarding the substitution or addition of another type of armoured fighting vehicle is made in a later paragraph of this paper, but, even if this suggestion were adopted, time must elapse before the alteration could be effected and the immediate problem therefore remains to be solved.

It cannot therefore be too strongly emphasized that armoured cars must be utilized as economically as possible and that it is folly to imagine that a sub-section of armoured cars is an adequate escort for any M. T. convoys of over fifteen vehicles, when there is any probability of attack by a considerable organized body of the enemy.

(c). The only possible escort for mechanical transport convoys other than armoured cars must consist of infantry mounted on lorries.

The main objections to the employment of infantry for this duty are as follows :—

- (1) The necessary personnel can only be obtained by decreasing the strength of garrisons detailed for the protection of posts, etc., and therefore only small infantry parties are likely to be available for escort duty.
- (2) Infantry mounted in lorries are, while so mounted, extremely vulnerable to enemy attack.

On the other hand infantry as an escort possess one advantage over armoured cars, namely, that they are capable of manoeuvring off the road and therefore are able to dislodge an enemy from his position by fire and movement.

It may therefore be concluded that lorry carried infantry are not by themselves an adequate or satisfactory escort for a mechanical transport convoy, but that they would prove of great value if utilized in conjunction with armoured cars, in which case they would usually travel in the rear of the convoy where they would not be liable to be ambushed by enemy fire but would retain their power of manoeuvre and be able to act by fire and movement against the enemy, supported by the fire of armoured cars from the road.

(d). The question of the composition of escorts may therefore be summed up as follows :—

- (1) A sub-section of armoured cars is an insufficient escort for a M. T. convoy of, say, 25 lorries.
- (2) A section of armoured cars is an adequate escort for such a convoy despite its limitations, but in practice a whole section would seldom be available.
- (3) Lorry-mounted infantry alone do not form a suitable escort for a convoy.
- (4) A combination of a sub-section of armoured cars and a detachment of lorry-mounted infantry form a powerful and practical escort.

*VI.—Organization and distribution of an escort.*

(a). Assuming, therefore, that an escort consisting of one sub-section of armoured cars with one platoon of lorry-mounted infantry were detailed for the protection of a convoy, it is desirable to consider how this force should be distributed and organized to carry out its duties with the maximum efficiency. It is suggested that the best distribution would be as follows :—

- (1) The sub-section of armoured cars would move at the head of the convoy, the rear car moving immediately in advance of the leading lorry and in close touch with it.

The leading car would move in advance by bounds of varying length, which, however, would not normally exceed half a mile, in order to reconnoitre the road and to discover whether it was clear of obstacles, etc.

At the end of each bound it would halt until the rear armoured car came into view when it would again immediately advance in a fresh bound forward. Responsibility for maintaining touch would rest with the Commander of the leading armoured car.

The sub-section D. R. would move in rear of the second armoured car.

Experiments are being carried out to ascertain if the motor cycle can be carried on fixtures outside the armoured car and the D. R. accommodated inside the car whilst carrying out close reconnaissance or when cars are likely to come under hostile fire.

- (2) The actual convoy of M. T. vehicles would move immediately behind the rear armoured car which would be responsible for keeping touch with the leading lorry which in turn would be responsible for maintaining the correct speed at which the convoy was ordered to travel.
- (3) The lorry-mounted infantry would move in rear of the convoy, excepting in the event of an exceptionally long column when one lorry of infantry would move in the centre of the column.

(b). In the case of an escort consisting of a section of armoured cars the same principles should be observed, the rear sub-section of armoured cars being substituted for the lorry-mounted infantry.

*VII.—The action of the escort in case of enemy attack.*

(a). An enemy attack is likely to be made in one or two ways.

- (1) Upon the head of the convoy, in which case it is probable that an attempt would be made to block the road.
- (2) On the centre of the convoy, when the leading armoured cars had passed the ambush.

(b). In the former case the following action should be taken. In the event of either enemy fire being opened on the leading car or of the road being blocked by an obstacle, the armoured car would withdraw on to the head of the column, either reversing or turning, as circumstances might dictate and would meanwhile sound its Klaxon horn continuously as an alarm signal. Fire would only be opened if enemy targets presented themselves. On the leading armoured car coming into view or on hearing the continuous sounding of the Klaxon horn or of firing, the rear armoured car would immediately halt, thus halting the convoy out of range of rifle fire from the enemy ambush.

The O. C. convoy and the Commander of the lorry-carried infantry would be informed of the situation by the armoured car despatch rider, and the O. C. escort would issue orders and take action to clear the obstacle and to disperse the enemy.

If the above procedure were adopted, it should result in the halting of the convoy before it is exposed to the enemy fire and should enable the O. C. escort to form his plan of action and to carry it out without any portion of his force being prematurely involved in action.

(c). In view of the considerable moral effect which the presence of armoured cars has on the tribesmen it is more likely that the enemy will wait until the armoured cars and part of the convoy has passed before delivering his attack, and there is little doubt that, should he adopt this plan, considerable confusion would result and some loss would probably be inflicted upon the convoy. The sudden opening of heavy rifle fire by a concealed enemy on the centre of the convoy would probably result in at least one lorry being ditched through its driver becoming a casualty. The road would thereby probably be blocked and successive lorries would tend to become piled up on the ditched vehicle.



In such an event the convoy would be split into two parts, and it is of the greatest importance that the correct procedure to be adopted should be fully considered so that all ranks may be aware of the action that should be taken if such a contingency should arise.

In such circumstances it is obvious that the Commander of the lorried infantry travelling in rear of the column would very quickly become aware of the attack on the convoy, but that a considerable interval of time might elapse before the armoured cars in advance of the column would receive intimation that an ambush had taken place.

It is also obvious that immediately he became aware of the fact that the convoy had been ambushed, the Commander of the lorry-mounted infantry must take such action for the protection of the convoy and the dispersal of the enemy as circumstances might dictate, and that the drivers of lorries in rear must, after halting their vehicles, take cover.

When fire is first opened by the enemy, the tendency must be for the drivers of the lorries fired upon to increase speed and therefore all vehicles in advance of the first lorry to become a casualty will automatically draw clear of the ambush.

In order that the armoured cars may receive notification of the fact that the convoy has been attacked, the following action is suggested as the most practical means available at present for communicating the alarm. On fire being opened on any portion of the convoy lorry drivers will increase their speed, but will not endeavour to pass the lorry ahead and will continuously sound their horns, this alarm signal being picked up by each successive lorry ahead and thus transmitting to the rear armoured car.

The sub-section Despatch Rider will immediately move forward and inform the Commander of the leading armoured car, who will turn his car and rejoin the rear car of his sub-section.

The rear armoured car will increase speed and continue to advance until there is no doubt that the rear of that part of the convoy, which has succeeded in passing the ambush, is clear of the enemy rifle fire, when it will halt.

Drivers of the halted lorries will then draw their lorries into the side of the road, dismount and take cover.

The armoured cars will then move to the scene of the ambush and co-operate, as circumstances may dictate, with the infantry escort in the dispersal of the enemy.

While it is realized that the course of action suggested above is open to criticism, it is suggested that it is probably the best which could be taken in the circumstances and that it is essential that definite instructions should be issued as a guide to the action to be taken, or otherwise great confusion would almost inevitably occur and there would be danger of dispersion in force and consequent defeat in detail.

*VIII.—Suggested future developments.*

Hitherto the only problem which has been considered in this paper is how mechanical transport convoys may be most efficiently escorted with troops, armoured fighting vehicles and equipment which are actually now available.

It is however a matter of interest to consider whether the utilization of vehicles and equipment recently introduced in the United Kingdom would assist in solving the problem.

(a). *Armoured fighting vehicles.*—As has already been pointed out, the present type of four-wheeled armoured car is by no means ideal for the task of convoying, nor is it to be expected that the larger and heavier six-wheeled vehicle, which is shortly to be introduced, will prove any more suitable for this purpose, although its powers of movement across country will doubtless be of value under other conditions of war.

A much more suitable vehicle for convoy work appears to have been evolved in the light (Carden-Loyd) tank.

This vehicle possesses the following advantages:—

- (1) It is economical in cost. Price about £ 500, *i.e.*, 4 Carden-Loyd light tanks can be supplied at the same or less cost than one Crossley armoured car.
- (2) It is economical in personnel being manned by two men. For each of the present type of armoured car a crew of seven is allotted in War Establishments.
- (3) It is extremely fast (40 m.p.h.) and extremely handy, being able to turn on its own axis.
- (4) It can move across any normal country.

- (5) Its armament is one Vickers gun whereas although the Crossley armoured car carries two of these weapons, only one is normally fired, the other being kept in reserve.
- (6) Its tracks have been proved to stand up well to road work, but, if desired, wheels can be fitted in addition, whereby the tank can be converted practically instantaneously from a tracked into a wheeled vehicle. These wheels are no longer fitted in the United Kingdom since they were found to be unnecessary on account of the efficiency of the track and undesirable on account of the danger of their being shot away by concentrated machine gun fire. Such fire, however, is not likely to be experienced in warfare on the frontier and it is possible that alternative wheels would prove an advantage in this country.

It is therefore clear that four, or at least three, of such light tanks could be purchased, maintained and manned at the same cost as that required for one of the present type of armoured car, *i.e.*, that eight, or at least six, of these armoured fighting vehicles would be the equivalent financially of a sub-section of Crossley armoured cars.

Accepting for the sake of argument the lower figure, there can be no doubt whatever that a detachment of six light (Carden-Loyd) tanks would provide adequate protection even for a convoy of considerable length, since the increased number of vehicles would enable distribution to be made to cover the head, centre and rear of the column, whilst the increased mobility and cross country capacity combined with the trebling of the fire power available render such a detachment an extremely powerful fighting force.

Nor is the light tank likely to prove less suitable for the other duties for which it might be required in India. Its mobility, fire power and moral effect render it suitable for employment for Internal Security purposes, whilst its value in normal warfare has already been repeatedly proved in manoeuvres in the United Kingdom.

Trials with these vehicles in India will quickly prove whether the above claims are justified and will be watched with great interest. If these are successful as, in the opinion of officers now serving on the Frontier who have had experience of their employment in the United Kingdom, is likely to be the case, the problem of the efficient escorting of M. T. convoys will have been solved.

(b). *Inter-communication.*—Reference has already been made to the difficulty of communication not only between armoured cars but also between the component parts of the convoy column.

The problem is one of the greatest importance, and it is not any exaggeration to say that the future development of mechanization in the Army is largely dependent upon its satisfactory solution.

Experiments with radio-telephony and wireless telegraphy have already proved sufficiently successful to justify the authorization of fitting an R. T. and W. T. set to one car in each armoured car subsection. It may be hoped that in the near future such sets may not only be fitted to each armoured car but also provided for one or more vehicles of the convoy itself, so that safe and reliable communication may be maintained throughout the column.

(c). Although the Stokes mortar is no longer one of the official weapons of the Army, there are many who regret its disappearance. Such a weapon would appear to possess great value if carried in one of the lorries transporting the infantry under which circumstances the disadvantages of its weight and that of its ammunition would no longer be factors that militate against efficiency.

#### *IX.—Conclusion.*

The suggestions advanced in this paper are not in any way intended to be dogmatic.

They are put forward since, in the opinion of the writer who has had the opportunity of observing the methods at present adopted, the subject of the efficient escorting of M. T. convoys requires further consideration.

It is essential that the greatest possible security should be afforded to such convoys and if this paper stimulates criticism and discussion, as to the manner in which this may be attained, it will not have failed in achieving its object.

## WARS WITH ARAB PIRATES.

By

LT.-COLONEL C. C. R. MURPHY.

In view of the general security at present enjoyed throughout the Persian Gulf by the traders of all nations, it is perhaps difficult for us to realise that for many years that region was in the relentless grip of pirates whose depredations were frequently attended by the most atrocious cruelty. From the earliest times, British policy in the Gulf has been directed towards the suppression of piracy, and to-day ships roam over the blue serene of its waters in perfect safety where in those far-off days death and rapine ever threatened. But such an achievement has not been lightly won. Vigilance alone proved inadequate to the attainment of this noble end, isolated effort of little avail, and during the early years of the nineteenth century it became abundantly clear that demonstrations of power alone could render our policy effective. This memoir attempts to deal with certain of these expeditions, the story of which is seldom told. Even to students of history battle honours such as *Arabia*, *Persian Gulf* and *Beni Boo Alli*, convey little or nothing. They but faintly recall a chapter of naval and military history long since forgotten, yet full of absorbing interest and fruitful achievement.

The first of these expeditions was directed against the Joasmis\*, a predatory tribe of Arabs inhabiting the district of Sir, in the Oman promontory, and forming part of what was then known to sailors as the Pirate Coast. These tribesmen were subjects of the Imam of Masqat, and in the year 1809 the British Government determining to relieve that potentate from the power of the Wahhabis, and to suppress their piracies, despatched a force under Lieutenant-Colonel Lionel Smith to Ras-al-Khaimah, a town on the western side of the promontory which juts out into the Straits of Hormuz. The naval portion of the expedition, which assembled at Bombay, consisted of His Majesty's ships *Chiffonne* and *Caroline*, 36 guns each; and the Company's cruisers *Mornington*, 22 guns, *Ternate*, 16; *Aurora*, *Mercury*, *Nautilus*, and *Prince of Wales*, 14 guns each; *Vestal* and

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\* (In old British records the inhabitants of the Pirate Coast are referred to indiscriminately as "Joasmees." This word is a corruption of Qawasim, which is the plural form of Qasimi. Locally, however, these are pronounced Jawasim and Jasimi respectively).

*Ariel*, 10 each; *Fury*, 8; and *Stromboli*, bomb-ketch. The military force comprised the 65th Foot, the flank companies of the 47th Foot, and the 2nd Bombay Native Infantry.

The fleet, with this little force on board, sailed from Bombay towards the close of September, 1809, and had not left the harbour twenty-four hours when an accident occurred. The *Stromboli* was in tow astern of the *Mornington* when suddenly her bottom fell out and she foundered with all her precious cargo of ordnance, shot and shell. The fleet, however, reached its destination without further mishap and, on November 13th, the troops stormed Ras-al-Khaimah, the principal resort and stronghold of the corsairs of the Pirate Coast. Our men spiked the guns, burned every boat in the harbour, and levelled the fortifications, all with trifling loss to themselves. The force then sailed for Lingah, Qishm, and other haunts of Persian pirates who had thrown in their lot with their more formidable co-religionists of the Arab coast. The fort at Laft, in Qishm, was bombarded and the chief called upon to surrender before daylight. With the dawn of the morning all eyes were directed towards the fort when, to the surprise of the whole expedition, a man was seen waving a union jack on the summit of its walls. This gallant action was performed by Lieutenant Hall of the Indian Navy, who had commanded the ill-fated bomb-ketch at the time of her sinking, and had saved himself by swimming. He now commanded the *Fury* and, during the night in question, had gone ashore with a union jack in his hand and advanced alone to the fort gates. The enemy, thinking him to be the herald of others following, fled, and upon the walls of the fort thus abandoned he planted the British flag, to the surprise and admiration of the whole fleet.

In spite of these measures the corsairs continued their outrages, even extending their sphere of operations into Indian waters. Incredible as it may seem, the pirate fleet cruising off the coast of Kathiawar and Kutch after the monsoon of 1818 was officially computed at sixty-four vessels, carrying no less than seven thousand men; and owing to their ever-increasing boldness the Indian Government again resolved to take decisive measures against them. Accordingly, in November, 1819, a force under the command of Major-General Sir William Grant Keir, consisting of a company of artillery, His Majesty's 47th and 65th Regiments, the 1st Battalion (2nd Native Infantry, and the flank companies of the 1st Battalion) 3rd

Native Infantry and the Marine Battalion, embarked at Bombay and sailed for the Persian Gulf on the 3rd November, 1819.

The naval portion of the expedition consisted of His Majesty's ships *Liverpool* (50), *Eden* (26), and *Curlew* (18); and the Company's cruisers *Teignmouth* and *Benares* (16); *Aurora* and *Nautilus* (14); and the *Ariel* and *Vestal* (10). Three other Company ships were cruising about in the Gulf at the time. Altogether the troops numbered over 3,000, of whom rather more than half were Europeans. On Sir William Keir's staff was Captain G. Forster Sadlier, 47th Foot, the well-known Arabian traveller.

On December 2nd, the fleet arrived off Ras-al-Khaimah. The next morning disembarkation began at a point about two miles south of the town, and by the evening of the 4th our front positions had been advanced to within four hundred yards of the fort. Much fighting ensued, and eight guns set to work battering down a breach which on the 9th was declared practicable. In the morning the fort was occupied without opposition, the enemy having evacuated it during the night. Shortly after the capture of Ras-al-Khaimah, a detachment under the command of Lieut-Colonel Warren, was sent off to take another piratical stronghold called Dhayah, about eleven miles distant and not far from the coast. On arrival Colonel Warren decided that his little force was inadequate for the speedy reduction of Dhayah, and asked for reinforcements. As soon as the latter had been disembarked the siege was closely pressed, but a breach having been effected the enemy capitulated and the column returned to Ras-al-Khaimah where shortly afterwards the whole force, less a detachment left behind to garrison the fort, embarked. The force next landed at Sharjah, Abu Dhabi, and other centres on the Pirate Coast; but the enemy offered no resistance, the forts in each case being dismantled without molestation. The main objects of the expedition having been thus accomplished, the fleet sailed away to the island of Qishm to water before taking its departure for Bombay. The European portion of the force sailed for India at the end of February; but a less agreeable fate awaited the flank companies, who were sent to reinforce the garrison at Ras-al-Khaimah, the command of which had devolved upon Captain Thompson, 17th Light Dragoons, Political Agent in the Gulf, an officer whose career was in many respects a very remarkable one. Our troops remained in Ras-al-Khaimah until late in the hot weather when the fort was demolished.

In spite of the success of these two expeditions, piracy continued unabated; and during the hot weather of 1820, owing to such continuance, complications arose with a tribe called the Bani Bu'Ali, which led to a great disaster. Though totally unknown to the western world of those days, these Arabs were notorious throughout the Gulf as a ferocious and turbulent tribe inhabiting Ja'alan, a province belonging to the Imam of Masqat, whose authority they had just thrown off. The Government of India had been informed of certain grave irregularities on the part of the inhabitants of Lashkharah, a small settlement south of Ras-al-Hadd and the port of their capital, Balad Bani Bu'Ali, about twenty miles inland. Accordingly, Captain Thompson, the Political Agent, was ordered to proceed against them should their conduct be proved to have been piratical. The *Mercury*, 14 guns, was therefore despatched to Lashkharah with a letter which, the surf being too high to allow of the passage of a boat, was taken ashore by the pilot who swam. On landing, he was immediately cut to pieces. Captain Thompson at once determined, somewhat naturally, to execute reprisals, and six companies of Indian infantry with a party of artillery and eight guns (already in the Gulf) were embarked on *H. M. S. Curlew*, and the Company's cruisers *Ternate*, *Prince of Wales*, *Mercury*, and *Psyche*, which sailed from Qishm for Masqat, where a plan of operations was arranged with the Imam. It was decided to proceed to Sur, there to be joined by two thousand of the Imam's troops. A hundred seamen were to have accompanied the column, but owing to differences between the Political Agent and the Senior Naval Officer they were re-embarked, an incident to which the subsequent disaster may be partly attributed.

The small force under the command of Captain Thompson landed at Sur, and marched through the territory of the Imam to the attack of the tribe in their stronghold and capital at Balad Bani Bu'Ali, a hazardous journey of fifty-five miles into the interior. On arrival at the straggling settlement of Balad Bani Bu Hasan, some seven miles from the objective, the column halted and formed an intrenched camp. On November, 9th, 1820, having left a guard behind to protect the camp, the force consisting of four light guns with a detachment of artillerymen, about three hundred sepoy, and perhaps two thousand of the Imam's troops, resumed the advance. As they were marching in column to take up a position from which to storm the fort, they



were suddenly attacked, when about three miles from Balad Bani Bu'Ali, by a strong body of tribesmen who, headed by their chief, rushed sword in hand upon the force and completely overwhelmed it, pursuing the remnants until they found refuge within their intrenched camp at Balad Bani Bu Hasan. In this affair, two hundred and seventy men were killed, including six out of the eight British officers engaged. The tribesmen, who fought with amazing ferocity, dragged from his palanquin the surgeon, who was sick, butchering him on the spot. The Imam himself displayed great personal courage throughout and was wounded whilst endeavouring to save the life of an artilleryman. During the night the tribesmen attacked the camp, but were repulsed. Captain Thompson and the Imam decided that they could not maintain their position, and on the 10th began a retirement, *via* the Wadi-al-'Aqq, to Masqat, where they arrived on the 17th November. No other European has ever performed this journey. Besides Captain Thompson, the only British officer to escape was Lieutenant P. Boswell 1st Battalion, 2nd Regiment N. I., who, with the help of two friendly Arabs, managed to struggle back to Sur, the soles of his feet being completely worn to the bone.

The action of the Political Agent in launching this expedition was apparently disapproved by the Government of Bombay; nevertheless, to avenge our national honour punitive measures against the Bani Bu'Ali were immediately sanctioned,\* and a force under Major-General Sir Lionel Smith was embarked on board sixteen transports and eleven *baghlahs* (these last for the horses), and sailed from Bombay on the 11th January, 1821, under convoy of the Company's brig of-war, *Vestal*. The military force consisted of His Majesty's 65th Regiment, the Bombay European Regiment, the 1st troop of the Brigade of Bombay Horse Artillery, and the 5th Company of the 2nd Battalion Bombay Foot Artillery; also the 1st Battalion 7th N. I. and the 1st Battalion 2nd N. I. The European soldiers accompanying this expedition numbered about 1,300, with 1,600 sepoys and a like number of camp followers.

After a tedious voyage of seventeen days the ships came to anchor near Ras-al-Hadd, the most easterly headland of Arabia; and on the morning of the 29th, after considerable difficulty, and danger, the boats made their way through the surf and landed the troops safely. The latter took up a position near the village of Sur,

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\* At this time the Commander-in-Chief, Bombay was Lieutenant-General Sir Charles Colville, G.C.B., who commanded the 4th Division at Waterloo.

about four miles from the point of disembarkation. Amongst the officers with this force was Lieutenant Boswell, who died at Sur on February 18th, never having recovered from his terrible experiences of the previous November.

For several days the force remained in camp at Sur, awaiting the arrival of the Imam and the transport animals, and without hearing anything of the enemy; but towards midnight on February 11th the camp was suddenly and ferociously attacked by a horde of Bani Bu'Ali tribesmen, under the leadership of a brother of the head shaikh. The main camp had been pitched at some little distance from the beach, where the General had taken up his headquarters with the Bombay European Regiment. The enemy, having discovered this, endeavoured to kill him and his staff, and on the night in question, six hundred of them, after making a flank march of over fifty miles for this purpose, fell suddenly on the sleeping and unsuspecting camp. After some sharp fighting, however, the attack was beaten off with a loss to the enemy of only fifteen killed and a dozen badly wounded. Amongst the British casualties was Colonel Sir George Cox, Bart, commanding one of the brigades, who received four severe wounds. All the horses were hamstrung. After this episode the General moved over to the main camp.

At last, on February 21st, His Highness the Imam of Masqat arrived with about a thousand men and nearly as many camels. Transport having been thus procured, the division, accompanied by sixty seamen and a detachment of the Marine Battalion, started for the interior, and after an excessively trying march bivouacked on March 1st at Balad Bani Bu Hasan, where the heavy stores were dumped. The next day the advance was resumed, the division marching over the ground on which Captain Thompson's column had been massacred in the preceding November, and whose skeletons still lay bleaching in the sun. On gaining an eminence from which the fort at Balad Bani Bu' Ali was visible, the tribesmen opened fire with one of their captured cannon. The division continued to move forward, and as they were closing in to assault the fort the enemy left their defences to give battle and, thinking to repeat their former tactics, charged down on the line of bayonets with broadsword and shield. Disregarding the showers of grape they fought with desperate valour and, with the fanaticism engendered by their religion, endeavoured again and again to break through the British squares. All who witnessed this extraordinary attack declared that

more determined bravery was never displayed by the troops of any nation. But it was in vain; for this spirited onslaught, unsurpassed for ferocity in the annals of war, was completely defeated, and their town and fort occupied. Out of perhaps a thousand tribesmen engaged, one half were left upon the field dead or severely wounded, while two hundred and thirty-six others, of whom ninety-six were wounded, were taken prisoners. The families falling into British hands amounted to upwards of a thousand individuals. All the guns which the Bani Bu' Ali had captured from Captain Thompson's column were recovered in good order. The Imam ordered all the date groves to be cut down and the watercourses turned. Amongst the enemy wounded were their two principal shaikhs, one of whom had received two musket balls in his leg in the night attack at Sur on the 11th February.

The object of the expedition having been accomplished by the annihilation of the tribe, the flower of whom had fallen in the attack on March 2nd, the force only remained for four days before returning to Sur where, after another very severe march, they embarked for Bombay on the 19th of that month.

The Imam received from the Governor-General of India a magnificent sword in recognition of his gallant and loyal conduct throughout these two expeditions. The prisoners were taken to India where they were kindly treated, and after being kept in confinement for a few months were given money and sent back to their own country.

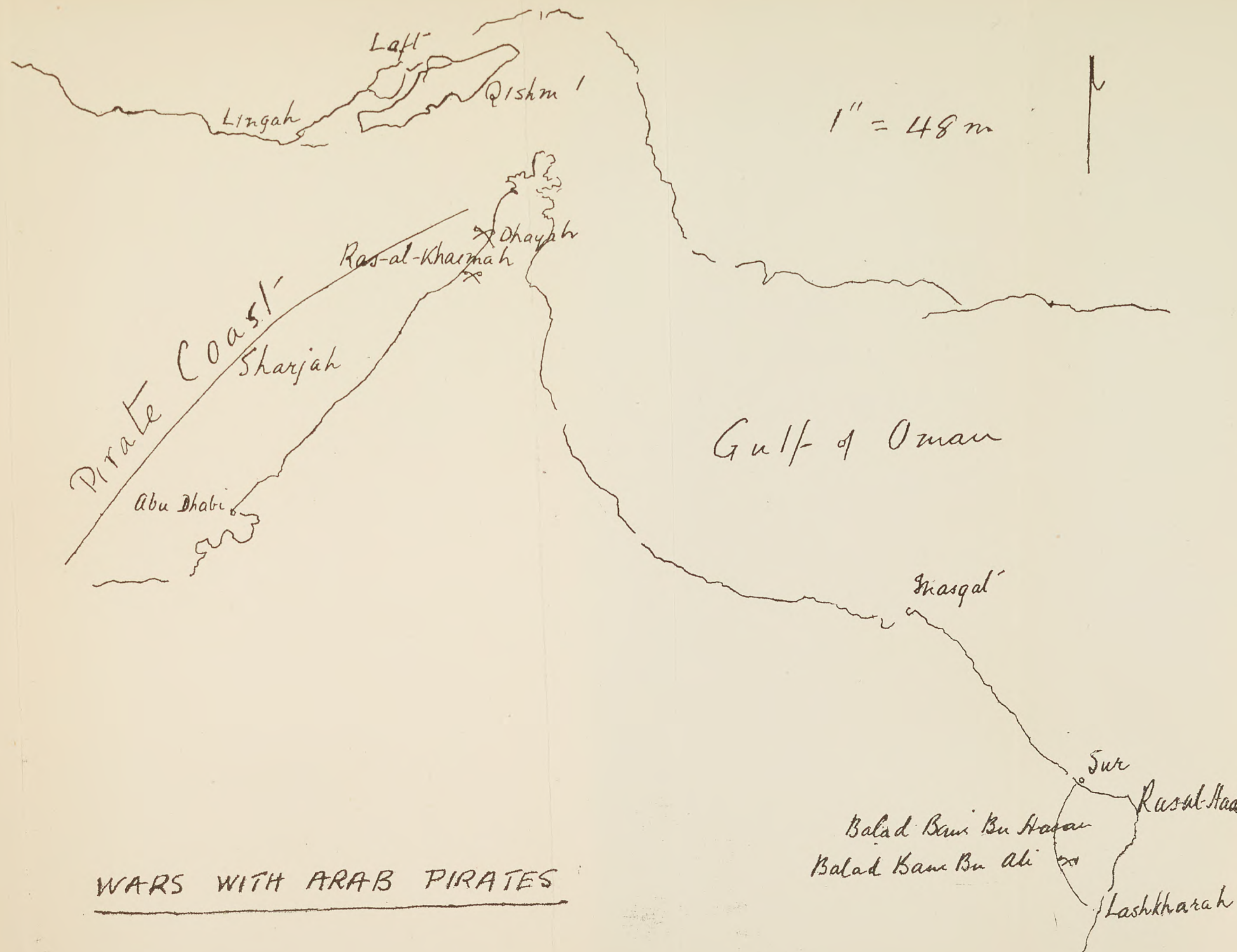
Lieutenant Wellsted, of the Indian, Navy, the first and last European to enter their capital since this expedition—visited the Bani Bu'Ali in 1835. The tribesmen, on learning that he was an Englishman, jumped for joy and accorded him an extraordinarily hearty welcome, showing that these acts of clemency on the part of the British had not been forgotten.

The cumulative effect of these successful expeditions—for which battle honours but no medals were awarded—has been to rid the Persian Gulf of the enemies of civilization, so that murder and pillage have ceased; and with the Pirate Coast only a name, peaceful trading has been secured for all nations.

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NOTE I.—It is interesting to observe that for gallantry in this action a subaltern of the 113th Infantry was created a Companion of the Bath.

NOTE II.—For the above account the writer is indebted to the works of Mignan and Low; to the records of the following regiments;—113th Infantry; 121st Pioneers; the 1st and 2nd Battalions 5th Mahratta Light Infantry; and the 1st Battalion 6th Rajputana Rifles (Wellesley's). Also to the Gazetteer of Arabia, Simla, 1917.



WARS WITH ARAB PIRATES



## THE WINTER CAMPAIGN OF 1916 IN EAST AFRICA.

By

COLONEL G. M. ORR, C.B.E., D.S.O.

On the withdrawal of Lettow's main force across the Mgeta river in mid-September the operations, begun in April, 1916, had come to a standstill. Lettow in his book <sup>(1)</sup> says, rather shrewdly: "General Smuts realized that his blow had failed. He sent me a letter calling "upon me to surrender by which he showed that as far as force was "concerned, he had reached the end of his resources." Smuts himself says, ".....our men were exhausted and worn out with cease- "less fighting and marching for several weeks through most difficult "country on half rations or less, and a thorough rest was imperatively "necessary, not only on military, but also on medical grounds." <sup>(2)</sup>

At the moment the 1st Division <sup>(3)</sup> at Duthumi and the 3rd Division <sup>(4)</sup> at Kissaki were facing Lettow's main force of sixteen companies <sup>(5)</sup> on the Mgeta river. The 2nd Division <sup>(6)</sup> was facing, at Kidatu on the Ruaha river, a rearguard of three companies left by Kraut who had retired on Mahenge with five companies. In the south-western area Northey's force, <sup>(7)</sup> which had detachments out as far apart as Iringa and Songea, had its main column near Lupembe facing some of the six companies which were along the Ruhudje river. In the north-west the Belgians had ceased operations after entering Tabora, thus allowing Wahle's force of eight companies to retire unmolested towards Iringa and to the south of that place. All the coast towns were in our possession. In the extreme south the Portuguese had a force on the Rovuma, and were about to advance on Newala, in which area the Germans had but three companies under Looff. In the Rufigi area there were two German companies at Kissangire faced by a small British column covering

<sup>(1)</sup> See "My Reminiscences of East Africa." Von Lettow Vorbeck.

<sup>(2)</sup> See Smuts' despatch, 17th of October 1916: also article "Smuts v. Lettow," *Army Quarterly*, January 1925.

<sup>(3)</sup> 1st Division (Hoskins)—2 infantry brigades.

<sup>(4)</sup> 3rd Division (Brits)—2 mounted brigades and 1 infantry brigade.

<sup>(5)</sup> The number of German companies is based throughout on a study of Lettow's "Reminiscences." The strength of a company averaged 16 Germans, 160 natives and 2 machine guns.

<sup>(6)</sup> 2nd Division (Vandeventer)—1 mounted regiment and 1 infantry brigade.

<sup>(7)</sup> Some 2 to 4 battalions.

Dar es Salam, one company near Kilwa and one company about Madaba. Two companies were on their way to reinforce Loeff. Omitting the five companies which would thus be under Loeff, Lettow had twenty companies in the Rufigi-Kilwa area, while in the western area were fourteen companies which might be joined by eight more under Wahle.

This being the situation Smuts designed, as soon as he could reconstitute and reorganize his forces, to put into operation ".....a great encircling move south of the Rufigi." (8)

In the west matters were very complex. The irruption of Wahle's force in three columns on to Northey's rear made it necessary to secure Irigna by sending troops from Vandeventer's force on the Ruaha, while Northey had to turn about in order to deal with Wahle. It was not until the end of November that the situation became clear. By that time two of Wahle's columns, totalling six companies, had broken through and crossed to the east of the Ruhudje, while the third column of two companies had surrendered to Northey. Wahle then took command in the Mahenge area, where his twenty companies were strung out in detachments from Kidatu on the Ruaha river, through Muhanga in the Uchungwe Mts. between Iringa and the Ruhudje river, on through the vicinity of Lupembe and so south towards Songea.

After visiting the western front at the end of November, Smuts decided that, while his encircling operation south of the Rufigi was taking place, Vandeventer from Iringa should operate through Muhanga and down the Ruhudje to its junction with the Rufigi, and that Northey should deal with the enemy near Lupembe and Songea "by moving to the Ruhudje river and Mponda respectively." The first step to reaching these far distant objectives was to drive the enemy over the Ruhudje. The combined forward movements by Vandeventer and Northey, in conjunction with the movements of the general advance elsewhere, were arranged to begin on the 24th of December.

Much had to be done between the end of September and the end of December. The whole white *personnel* had suffered so severely from disease, due to lack of sufficient food as much as to an unhealthy climate and to great exertions, that it was found necessary after a

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(8) See Smut's despatch, 28th of February, 1917.

medical examination to evacuate 12,000 men before the end of the year. The losses in animals had been, and continued to be, enormous; records between mid-September and mid-November showed a wastage of 10,000 horses, 10,000 mules, 11,000 oxen and 2,500 donkeys. The mounted South African regiments and field batteries were horseless; the regimental first line mules and the oxen of the trains and ammunition columns had ceased to exist; on the lines of communication, the mechanical transport which was of too heavy a type to stand the strain of such rough tracks, had broken down. It was well into November before the damaged bridges of the Central railway could be made fit to take supply trains, though relief was given to a certain extent by the ingenious expedient of equipping motor lorries with railway trolley wheels, and by using diversions at the bridges. The South African formations were replaced by a brigade of Nigerians—fine troops—from West Africa,\* and by two newly raised East African battalions. Many shifts were made to supply necessary transport, but it was not until the spring of 1917 that a suitable reorganization gave an adequate lifting power.

While the reorganization, the reconstitution and the redistribution of troops and transport were taking place during October, November and December, operations had still to be continued to deal with situations which developed in the various areas. The greatest activity was in the western theatre and in the Kilwa district. The transfer of a division to the latter area, and the formation of a base for operations inland was a slow process owing to the limited amount of shipping. It was further complicated by the fact that Kilwa had to be the site of the base, but, though on the coast, ships had to use a harbour fifteen miles away at the end of a tongue of land. Smuts' first intention had been for the Kilwa force to operate towards Liwale, but a move of the enemy early in October eastwards along the Rufigi caused him to change his plan. The first troops landed took up covering positions from Chemera to Kibata facing north-west and north.

Although Vandeventer and Northey began their advance from Iringa, Lupembe and Songea at the appointed time, the commencement of the operations by Smuts' main force on the Mgeta river had to be postponed until the 31st of December, owing to bad weather. At this date the forces for the encircling movement south of the Rufigi

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\* These troops did not arrive until the end of December.



were disposed as follows :—Under Smuts' immediate command on the Mgeta were Beves' brigade, Cunliffe's Nigerian brigade, Sheppard's brigade and some eight or nine batteries of artillery. In the Kissangire area a small column under Burne was to operate under the order of the Inspector-General of Communications. In the Matumbe Hills Hoskin's division, after repulsing a severe attack on Kibata by nine companies under Lettow, had O'Grady's brigade at Kibata facing north and Hannington's brigade slightly to the west and facing west.

All the dispositions which Lettow made during October, November and December were with one object to preserve "the rich" sources of subsistence in the lower Rufigi country....." "The middle Rufigi country" he records, was but sparsely settled and could not maintain both troops and carriers for any length of time."

When, therefore, he heard that his post at Kissangire had been attacked, though unsuccessfully, on the 9th of October, he left eight companies under Tafel on the Mgeta and took the other eight hurriedly down the Rufigi to Utete and thence up to Makima where he made his headquarters. It was this movement to the east which made Smuts convert an intended advance on Liwale into an actual occupation of the Matumbe hills. In its turn the appearance of our troops at Kibata caused Lettow to make a detachment of five companies under Schultz to prevent any further advance from that side towards the Rufigi. Meanwhile he went deeply into his supply situation which he found to be serious. He found that the dépôt at Mpanganya into which he garnered the supplies of the lower Rufigi was being depleted by hundreds of useless mouths. He drastically reduced not only all useless mouths, but the scale of baggage transport and the scale of rations. Only by doing so could he continue to feed his troops in that area until March, when the harvest would be ready to be gathered from the areas farther south which had been put under cultivation in the autumn. In December, probably when he heard that more troops were arriving at Kilwa, he decided to try and turn our forces out of Kibata and reinforced Schultz in person with four companies. It must have been about this time that he called in Tafel from the Mgeta to take charge of all his supply organization, and with him three companies, leaving Otto with only five companies to face our Mgeta force. At the same time he had to keep one company

at Mpotora on the Matandu. His next big depôt farther south was at Madaba. On the 31st of December, therefore, when Smuts began his advance, it would seem that there were five companies under Otto on the Mgeta, nine with Lettow and Schultz opposite Kibata, one at Mpotora, probably only two at Kissangire—for Lettow had discovered that there was only a very small British column to be watched—and possibly three at Mpanganya or in that neighbourhood. According to Smuts' intelligence Otto's force was much larger than in reality it was. Smuts, however, knew that Otto covered the two tracks which, running southward from Duthumi and Dakawa, cross the Mgeta, with an interval of five miles between them, and joining near Behobeho some fifteen miles to the south-east continue in that direction for another ten miles to the bridge over the Rufigi at Kibambawe, while Smuts' strategical plan was a great encircling move south of the Rufigi, his tactical plan for the first action was an encircling movement round the enemy's force immediately opposed to him. But the plan—and this was the more important part of it in his eyes—was also intended to secure a passage over the Rufigi without the enemy being made aware of his intention. He, therefore, allotted two-thirds of his force, disposed in four columns, to the task of surrounding and defeating the enemy and at the same time concealing from him the fact that a brigade was making a wide detour round by the west to the Rufigi above Kibambawe. Beves' brigade was selected for this task of seizing a crossing at Kipenio where the Ruhudje joins the Rufigi about twenty miles above Kibambawe. The 130th Baluchis (Sheppard's brigade) were to screen Beves' march by moving, on the 31st, round the west of the enemy's position so that on the 1st of January they should be on the Dukawa—Behobeho road some ten miles south of the position. Thence they were to establish contact with a column of two battalions under Lyall which, on the 31st, was to cross the Mgeta some ten miles east of the enemy, and to move, on the 1st of January, south-west to the Duthumi—Behobeho road in rear of the enemy. Meanwhile, on the 1st of January, the Nigerian Brigade, less two battalions, but with four batteries of artillery was to make a 'holding attack' along the Duthumi road while Sheppard's brigade (less two battalions) with four batteries was to envelope the enemy's left flank on the Dakawa road and make a "continuous advance eastward." Smuts kept one battalion of Nigerians in

reserve at Duthumi. Otto evidently got wind of the movement of the Baluchis round his left flank on the night of the 31st and began to withdraw from his left by the Dakawa road on the morning of the 1st of January; his right followed later by the Duthumi road. Both wings broke past the 130th Baluchis and Lyall's column respectively, but the latter captured a 4-inch gun. The Nigerian Brigade, though engaged during the day, did not press forward and Sheppard's brigade found the enemy's trenches vacated. Beves' march to the Rufigi continued hidden from the enemy. Thinking that Otto would stand near Behobeho, Smuts, on the 4th, again tried to encircle him with Sheppard's brigade and Lyall's column, but, after a sharp action in which the famous hunter Selous was killed, Otto withdrew across the bridge at Kibambawe which he destroyed on the 5th of January. Smuts' main object, however, had been achieved, for Beves' troops, by a fine piece of marching had crossed at Kipenio and on the 5th of January were some five miles down the river and about fifteen miles from the Kibambawe bridge. From the 6th to the 8th, Sheppard was gradually passing troops across at Kibambawe in the face of opposition from Otto's rearguard, while Otto himself moved south to clear up the situation caused by Beves' unexpected appearance. But Beves, having out-marched his supplies and with his men exhausted, was reduced to inactivity and was ordered to withdraw to his bridgehead at Kopenio and to await reinforcement by the Nigerian Brigade. The enforced inaction of Beves' brigade wrecked Smuts' hopes of defeating at any rate one important detachment of the enemy. Whether its inaction was really due to its exhaustion or whether Smuts feared it would be in danger of meeting superior forces of the enemy is not clear.

As already stated Smuts thought Otto's force was much larger than it was, and, as there was no evidence to the contrary, he may well have thought that Lettow was near with his reserve.

It would appear that although Lettow had an inkling that Smuts was replacing his South Africans by Nigerians, and newly raised East African battalions, he regarded the military situation at the end of 1916 as favourable to him. He knew that the South Africans were being evacuated. He knew, too, that the Indian battalions were exhausted and that their ranks were much reduced in numbers and he believed that they were no longer capable of prolonged operations. The advance on to the Rufigi seems to have surprised him and the

presence of Beves' brigade on the east bank of the river and within almost a day's march of his main line of supply, which run through Mawa south to Madaba, came as a rude shock. He, therefore, marched off from his position in front of Kibata with "the greater part" of his main body—probably six companies as he apparently left Schultz with three to face Hoskins' troops. The line he took was to Utungi on the road from Mpanganya to Mawa. He says that it was a difficult march through unknown and rugged hills. The distance was probably fifty miles and he certainly took three days; it is therefore unlikely that he would have reached Utungi before the 9th. At Utungi he was within two days' march of Otto. By calling in Tafel's three companies he would have nine at his disposal, but his Kissangire detachment was still north of the Rufiji, on a level with Kissangire and only just beginning to retire in front of Burne's advance.

O'Grady's brigade from Kibata was ordered to occupy Mohoro as soon as possible and then Utete. Hannington's brigade was already sending forward troops to Ngarambi. It was not until the 10th of January that two battalions of Nigerians, withdrawn to Duthumi since the action of the 4th of January, started to reinforce Beves at Kipenio. They crossed on the 15th and, two days later, occupied an entrenched camp on Mkindu hill ten miles to the east while Beves moved north to join hands with Sheppard, and to clear the south bank of the Rufiji. By this time Mohoro was occupied and an advance began up the south bank of the Rufiji on Utete. Burne was following rather than pressing the enemy's companies north of the Rufiji.

When on the 20th of January Smuts left for England and handed over the command to Hoskins, Lettow held a front to the north-west covering the road Mpanganya—Utungi—Mawa, while to the south-east he had detachments on a line from Utete to in front of Nagarambi. On the 24th of January the Nigerian brigade, at full strength and with a pack battery, advanced in a south-easterly direction against Otto at Ngwembe where he was covering Mawa. Otto was, no doubt, reinforced by Lettow though it is not clear to what extent; anyhow the Nigerians were repulsed and retired to Mkindu. By this time Lettow's Kissangire detachment had withdrawn south of the river through Mpanganya, and we occupied Utete on the 21st.

Lettow is annoyingly reticent about his movements at this time, but he is eloquent on the difficulties of his supply situation and the steps which he took to ensure the filling of depots farther south. Hitherto the German civil administration had been in charge of the methods for the exploitation of the country's resources. Lettow now insisted on a more efficient service which would understand better the military needs, and work more energetically. Military supply detachments were organized and sent to work with the civil administration as far south as Massassi and the Lindi area. He says that "in this way the desired impregnation of the supplies and transport service with the necessary military spirit was completely attained."

On the 25th of January heavy rain began to fall, ushering in the wettest season known in East Africa for years. Operations came to a standstill. The British forces everywhere were with difficulty kept supplied. But, even if rain had not come, the transport had not sufficient elasticity to allow the troops either on the Rufiji or in the Matumbi hills to stretch farther into the plain of Madaba through which Lettow was at liberty to withdraw as soon as his local supplies gave out.

In the western theatre rain had interfered with movement much earlier. Vandeventer had begun his task by an attack on the enemy near Muhanga which aimed at driving him back on a force sent round to intercept his retreat. But the enemy made good his escape through dense bush and forest. On the 2nd of January torrential rain in the Uchungwe mountains completely stopped any further movement in this quarter. Northey fared better, but he too failed to catch the force opposed to him. Smuts, referring to these operations in his despatch, says that they showed the practical impossibility of cornering an enemy in country of such a nature. By the end of January Northey's columns were on the Ruhudje east of Lupembe, and at Likuju a few marches north-east of Songea. The enemy's companies in this area had been reduced by two which had surrendered at Likuju when their supplies were completely exhausted. Wahle, like Lettow, had been in great difficulties over supplies in the Mahenge area, so much so that at the beginning of February he ordered Kraut and Wintgens\* to take their detachments south beyond Songea to look for food.

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\* The story of Wintgens' operations and their effect is told in an article 'A Remarkable Raid,' R. U. S. I. Journal, February, 1926.

When Hoskins took over the command from Smuts it must have been obvious that the latter's hopes of surrounding Lettow's force south of the Rufiji could not be fulfilled. The only chance of dealing a real blow, and that to only one detachment, was lost when it was decided not to use Beves' brigade in a thrust northward from Kipenio when Otto was still engaged in preventing Sheppard's passage of the river at Kibambawe. Hoskins barely had time to appreciate the large administrative matters of supply and transport for which he was to be responsible as Commander-in-Chief and which Smuts had been too content to leave in the hands of his headquarters away in Dar es Salam, when, on the 25th of January, the rain began. It was thus at once brought home to the new Commander-in-Chief under what precarious conditions his forces were being maintained. They were acting from widely separated bases with four to five different lines of communication running through every variety of difficult country.

"In the Mgeta and Rufiji valleys roads constructed with much skill and labour, over which motor transport ran continuously in January, were traversed with difficulty and much hardship a month later by porters wading for miles in water above their waists. The Dodoma—Iringa line crossed the greater Ruaha in the dry weather by an easy ford; when the rain had really set in, supplies had to be transported not only over a flooded river but also over a swamp on each side of it 6 feet deep and as many miles wide.....The valley of the Rufiji and its various tributaries became a vast lake....The conditions of the Kilwa area were equally trying, as roads became impassable for motor transport and animals died in a few weeks after being landed. An even more serious factor was the sickness amongst the troops. The coastal belt and the valleys of the Mgeta and the Rufiji even in dry weather are unhealthy for all but the indigenous African; and during the rains there is a great increase in malaria, while dysentery and pneumonia strike down even the African native."

Truth to tell, both the composition of the force which invaded German East Africa in 1916, and the organization of its transport were fundamentally wrong. There were too many white troops; the columns were too big and unwieldy; all animals became victims either to tsetse fly or horse sickness, and heavy mechanical transport could not withstand a soil which became pulverized in dry

weather and turned to a morass of mud in wet weather\* It is probable that Smuts had very little to do with the organization of the troops or the transport. With the exception of his Chief of Staff, the staff had been selected by the War Office. As the administrative arrangements were to play so important a part in the campaign, it was unfortunate that Smuts should have given the impression that he did not want to trouble about their details. Although his method of command, *i.e.*, of having a small mobile advanced headquarters in the field, was sound in principle, it lost in effectiveness because the administrative staff was not adequately represented.

The tactics employed seem open to criticism. It was Smuts' principle always to manoeuvre his enemy out of any position he might take up and, seemingly, not to bring him to close action. The impression was given that this policy was due to the political object of acquiring as much country as possible so that there would be a good bargaining factor in our hands if, at a time when the war was going none too favourably for the Allies, it came to discussing terms of peace. Taking into consideration the size of the theatre of war and the comparatively small hostile force opposed to us, a policy of manoeuvring the enemy out of an area without much fighting was attractive and seemed certain to be successful. It is equally certain that if a real decision had been pressed and the enemy had been defeated, the country could equally well have been acquired without all the losses from disease and sickness caused by months of marching on short rations. The wide flank movements at the action of the Mgeta river were typical of all Smuts' tactical plans when in close contact with the enemy.

In bush country where it is so easy for bodies of troops to slip away, it is necessary for success that the centre of an attacking force should press the enemy's front vigorously while the wings should press in the enemy's flanks, rather than that outflanking columns should move wide round and hope for the enemy to be driven back on them. To commit a central column as at the Mgeta to a "holding attack" is to achieve nothing.

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See "Some afterthoughts on the War in East Africa, 1914-1918" R. U. S. I. JOURNAL.





EAST AFRICA  
Winter Campaign 1916-17

← to Tabora

← NEWA LCL

0 10 20 40 60 80 100 Miles





# SOME NOTES ON THE OPERATIONS WHICH FOLLOWED THE CAPTURE OF BAGHDAD IN 1917.

By

CAPTAIN J. M. HUNT.

The study of the campaign in Mesopotamia offers to those who took no part in it certain obstacles and discouragements which are not so apparent to people familiar with the country. At first the spelling and pronunciation of names is no small deterrent, and the similarity of the names of different places confuses those not conversant with the geography of the country. To take one example: when a would-be student confuses in his mind Samawah and Samarra, a confusion which may seem childish but is not uncommon, it follows that any discussion will fail to be profitable. It is therefore essential to establish in one's mind a clear idea of the lie of the country and of the position of the places which enter into the subject matter of any paper, before it is possible to derive from it any value. The sketch map attached to this paper shews the places to which reference is made.

The operations which followed the capture of Baghdad appear complicated, inasmuch as there was a rapid series of actions; and the student is at once confused with a long list of names. It is attempted here to classify these actions by shewing the causes which led up to them rather than to examine the battles themselves and their results.

The British forces with which we are concerned consisted at this time of two corps and one cavalry division, nearly all of which were about Baghdad. In opposition to them was one Turkish Corps, the XVIII, which had been followed up from the neighbourhood of Kut-el-Amara. The Turks had another corps, the XIII, operating in Persia to resist the Russian threat to Mesopotamia and their advance upon Baghdad or Mosul.

After the capture of Baghdad the first consideration was, naturally, to consolidate our hold upon it. It will be seen from the map that there are three main routes by which the enemy might assume the offensive against the town—namely the three rivers. It was therefore necessary to establish outposts for the purpose of giving early information as to the enemy's intentions, and to offer

resistance to any advance which might be made. In addition to this it was of first importance to secure the points from which Baghdad could be flooded.

With these objects then columns were despatched along the rivers. Columns moved up both banks of the Tigris with the two-fold object of securing the river banks and of establishing themselves in a position suitable to resist any advance on Baghdad. A column was also sent to the Euphrates at Alluja with similar objects, namely to gain possession of the head-waters of the Sakhlawiya canal and to establish itself on the Euphrates line of approach. Yet another column advanced up the Diyala and established itself at Baquba. Primarily all these actions were successful. They achieved the more important objects for which they were despatched.

Examined in detail, success is not in every case so apparent, but in studying the detail one is apt to lose sight of the main issues. It was hoped that each of these columns would accomplish more than the main essentials. The Tigris column expected to come up with the rear of the retreating Turkish Corps. It did so, and inflicted a severe defeat upon them at Mushahida (14th March), where the only considerable action in this phase of the operations took place. The Euphrates column, being delayed for a short time by a lack of transport, was unsuccessful in cutting off a party of Turks withdrawing from the Lower Euphrates. It may be added that it was not in time to capture the control of the Sakhlawiya canal before the head works had been destroyed by the Turks. This failure was fortunately not vital, as it was found possible to deal with the resultant floods in immediate proximity to Baghdad. The Diyala column was to engage a flank guard of the Turkish forces retreating from Persia; this detachment, however, retired from Baquba intact without offering any serious resistance.

The causes which gave rise to the battle of Mushahida and to the actions at Failuja and Baquba are clear. The immediate safety of Baghdad was aimed at, and the immediate safety of Baghdad was achieved, operations might conceivably have terminated at this point. One phase had at any rate been ended.

The Russian failure had considerably increased the number of Turks now opposed to us. Instead of having the one (Tigris) corps

we had in addition to meet the corps now retreating from Persia, whose attention should properly have been engaged by the Russians, or in dealing with which we had justly counted upon Russian co-operation. General Maude, therefore, decided to press his success before the Turkish Corps from the Persian front could combine with that on our own front, and his plan was as follows.

A force known as Keary's Column was to advance to the Jabal Hamrin, and the Cavalry Division against Delli Abbas, to engage the enemy with a view to preventing them from crossing the Diyala and moving towards the Tigris. It was still hoped that there would be sufficient Russian co-operation to enable us to inflict a severe defeat on the Turkish XIII Corps. But as the Russian pursuit failed to materialise, Keary's Column received the almost undivided attention of the Turks and was severely handled in the action of Jabal Hamrin on 25th March. It continued, however, to pursue the rôle assigned to it, namely—pinning the enemy to his ground.

The remainder of our forces were to mop up the Turks on the Tigris. The execution of this plan opened with the affair of Duqma.

It now transpired, however, that the Turk was outplaying us at our own game. While leaving a sufficient force in the Jabal Hamrin to pin our troops to that area, he was rapidly transferring the bulk of his corps across the river. A pause was therefore necessary for a careful review of the situation before proceeding further. It was decided that, by disposing the Cavalry Division to prevent the Turks debouching from the hills on the right bank of the Diyala, the original plan could be proceeded with.

The next move on the Tigris was intended to be a combined action on both banks, at Balad on the right, and at the mouth of the Adhaim on the left. But a counter move of the Turk again interfered. Though our right bank column defeated the enemy at Balad on the 8th April, our left bank column was withdrawn before engagement.

The Cavalry Division had been unable to confine the Turks to the Jabal Hamrin, and the enemy were now advancing down the Khali Canal. Further movement on the Tigris was clearly impossible until this danger had been met. A column was formed, chiefly from the troops on the left bank of the Tigris, and this, in conjunction with the Cavalry Division, drove the Turks back to the hills.

Though the action was not as decisive a victory as it perhaps should have been, it yet achieved its purpose in allowing the Tigris operations to be continued.

The continuation of these operations began with the Adhaim crossing (18th April), which was shortly followed by the battle of Istabulat (21st, 22nd April) and completed by the capture of Samarra (24th April).

There remained to be dealt with now one body of Turks, which with praiseworthy persistence had eluded the Cavalry Division and were advancing down the Adhaim from the Jabal Hamrin, but too late to relieve the pressure on the XVIII Turkish Corps. A force was sent up the Adhaim to meet them, and the enemy were defeated in the action of Adhaim village on 30th April.

It has been intended to shew that the second phase of the operations after the capture of Baghdad resolved itself into a pursuit of the Turkish XVIII (Tigris) Corps, with diversions against the XIII (Persian) Corps. Some of the actions which took place have not even been mentioned, while the attention paid to those whose names have appeared will seem callously insufficient in the eyes of the troops which took part in them. But, as has already been explained, the circumstances which brought about these actions, rather than the actions themselves, are the subject of this paper. And it is hoped that the sequence of events is clear. In the sketch map the actions have been distinguished according to the group to which they belong.

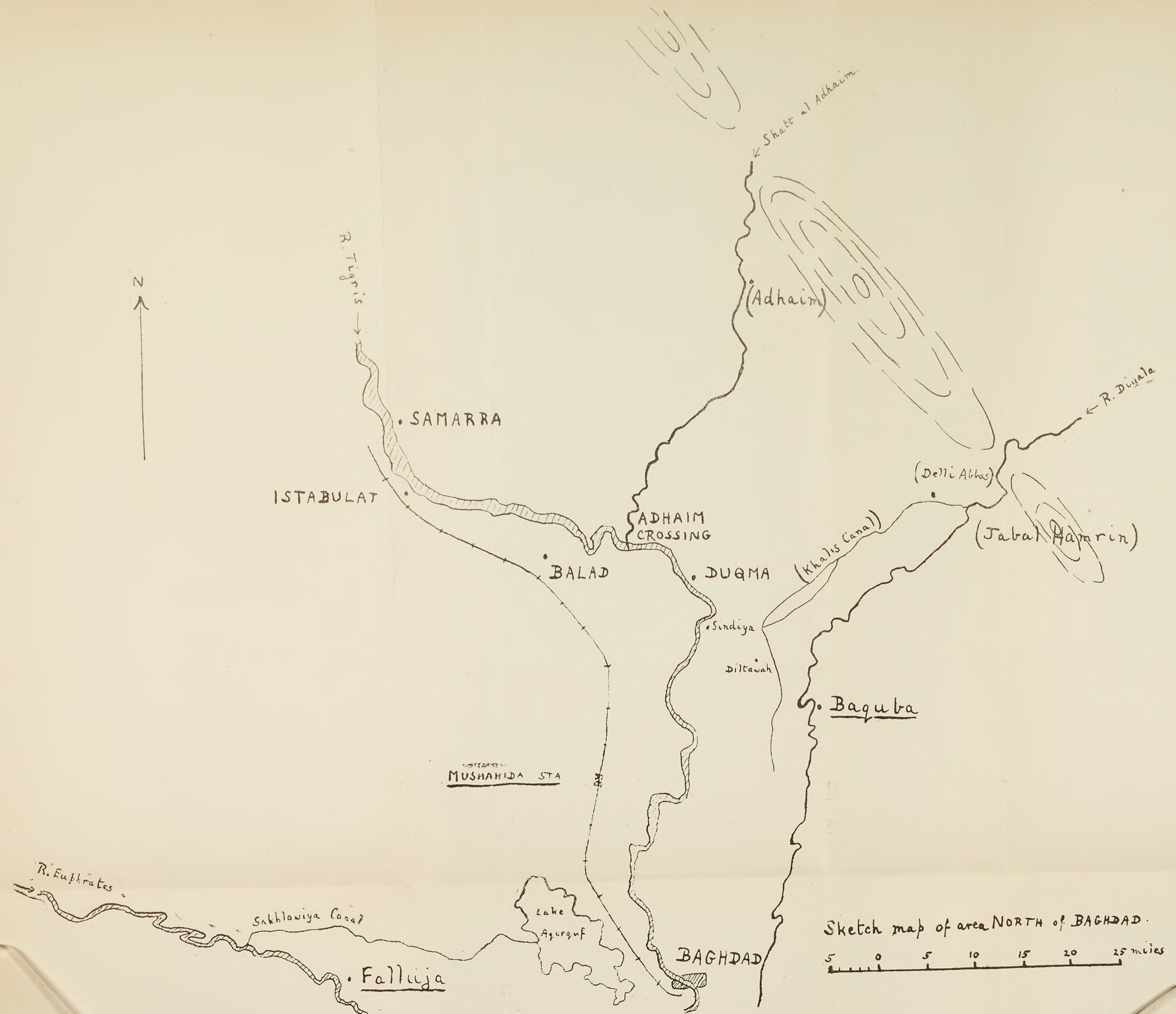
(1). Falluja, Mushahida, Baquba, have been underlined. These resulted from the plans for the immediate security of Baghdad.

(2). Duqma, Balad, Adhaim crossing, Istabulat, Samarra, are shewn in block letters. In this series of engagements the force originally opposed to us was finally disposed of.

(3). Jabal Hamrin, Delli Abbas, Khalis canal, Adhaim village, are shewn in brackets. These actions were against the Turkish XIII (Persian) Corps, and necessary in order to allow (2) to proceed.

Illustrations of almost any principle of Field Service Regulations can be found in the operations which took place during this short period ; but it is proposed to lay stress on only three points of interest.

The value, and use made, of interior lines is so evident as to [require little explanation. Our position between two converging







river routes, the Tigris and the Diyala, gave us an advantage which was fully exploited. We were able to strike blows at Duqma, Khalis Canal and the mouth of the Adhaim in turn.

Secondly, the principle of security. As has been shewn, the Turkish movements in the Jabal Hamrin resulted in a pause in our Tigris operations after the affair of Duqma, and later their threat on the Khalis Canal actually diverted our troops from the Adhaim. It would have been perfectly feasible to have raised from other sources a force sufficient to meet such interference as materialised in this direction. There was for instance about a brigade and a half in the neighbourhood of Sindiya and Diltawah, and at Baquba which could have been organized as a column for this purpose. In fact the troops composing the column which actually operated with the Cavalry Division at Khalis Canal were drawn partly from these sources and partly from the Adhaim. To have adopted such a course would have enabled the Tigris operations to be continued, without giving the enemy the opportunity of re-organizing during the delays between our blows. It would on the other hand have meant that both forces would have been based on insecurity, in fact on nothing at all. A failure on the part of either column would of necessity have involved the withdrawal of the other, and would in all probability have led to disaster. By the dispositions adopted, the columns working in each direction had behind them, in every case, a defensive line (Sindiya-Diltawah) which, though not strongly held, was yet sufficient to fall back upon in case of a reverse. General Maude was fortunate and able in so timing his actions in the two directions that he could combine offensive action with security.

Thirdly, it may be noticed that our formations, two corps, which were intact at the capture of Baghdad, were ruthlessly parcelled out into columns, between which a constant reshuffling took place. It is a compliment to the efficiency and elasticity of all branches of the staff and of the services that they were able to cope with these complications, without leaving any serious failure on record.



## BURMA.

By

CAPTAIN A. G. FULLER.

On the 1st January, 1886, had we been standing at the great gate which closed the path to the Peacock throne in the palace of King Thibaw in Mandalay, located immediately under the great glass spire "the centre of the Universe," we should have noticed a small piece of fluttering paper affixed to one of the massive gilded teak pillars which support that structure. An inspection of it would have revealed these words:—

"By command of the Queen Empress it is hereby notified that the territories governed by King Thibaw will no longer be under his rule, but have become part of Her Majesty's dominions, and will during Her Majesty's pleasure be administered by such officers as the Viceroy and Governor-General of India may from time to time appoint."

There are few historical documents, which, for their terseness, have brought about such far-reaching results as this announcement. In the practical application of this command an area of some 120,000 square miles, with a population estimated at four million souls, was incorporated in the dominions of the Queen-Empress.

In a short article it will not be possible or even desirable to try and deal in detail with events which occurred both before and after this momentous announcement, but an endeavour will be made to give a brief account of the country under three headings, *viz.*:—History, Geography, Races.

Owing to its geographical location Burma as a province of India is an anomaly. While its contributions to the general purse have reached a considerable figure, the sums available for its development appear to be negligible, consistent with the need, if one can judge by the state of communications within the country. This fact, along with many others has led to a demand for separation from India, which will need to be answered during the next few years, and a knowledge of the country cannot therefore fail to be of interest on this account.

### HISTORY.

Like India, the earlier history of Burma is shrouded in the mists of antiquity, and the legends and superstitions which have been handed down through the centuries have lost little in their accounts of the

doings of the early inhabitants. These traditions have been collected under the title of the "Yazawin" or Royal Chronicles, but as these unfortunately show an obvious variation from the truth in many important particulars, they cannot even be accepted as a reasonably true or even likely account of some of the early happenings. Even in their more recent historical portions nothing but the triumph of Burmese armies is ever recorded, and these do not always agree with history as we know it. A few examples will make this clear. After the first Burmese war in 1826, when the large districts of Arakan and Tenasserim were ceded to us, the chronicle merely records this as a favour of the King; and, after the second war, when the large district of Pegu came under our control, no mention whatever is made of this event. During the Great War one became accustomed to German withdrawals "according to plan," but the Burmese Kings were much more gracious in their pronouncements, for when a withdrawal "according to plan" became necessary, it is recorded that the King was merely pleased to forbear from inflicting punishment on his enemies!

If then the authorized historical record contains such glaring inaccuracies, it is hardly likely to avail us much in our search for the truth. To endeavour to obtain it from the "Yazawin" would be a mere waste of time. The researches of scholars however in recent years has helped to fill the gap.

Immigrations of Mongol tribes seem to have burst through from the north-west, driving out the early settlers as they came, and establishing various small kingdoms throughout the country. In this way were established the early kingdoms of Burma proper, in the upper reaches of the Irrawaddy; Arakan, Pegu and Tavoy on the coast, and those of Prome and Toungoo, in the centre. These small kingdoms passed through many vicissitudes. Internecine warfare was rife, and the more powerful rulers increased their domains by the process of conquest and absorption. Thus Tavoy became part of Pegu; Prome and Toungoo were incorporated in the kingdom of Burma, but Arakan remained a separate kingdom until 1784, when it was conquered by Bodaw Paya, King of Ava.

By 1599 the King of Ava held sway over the whole country except Arakan, and his domain included the Shan States, a portion of Siam, and tracts in western China. This kingdom existed until 1740 when the Peguans, jealous of their independence, rose in revolt,

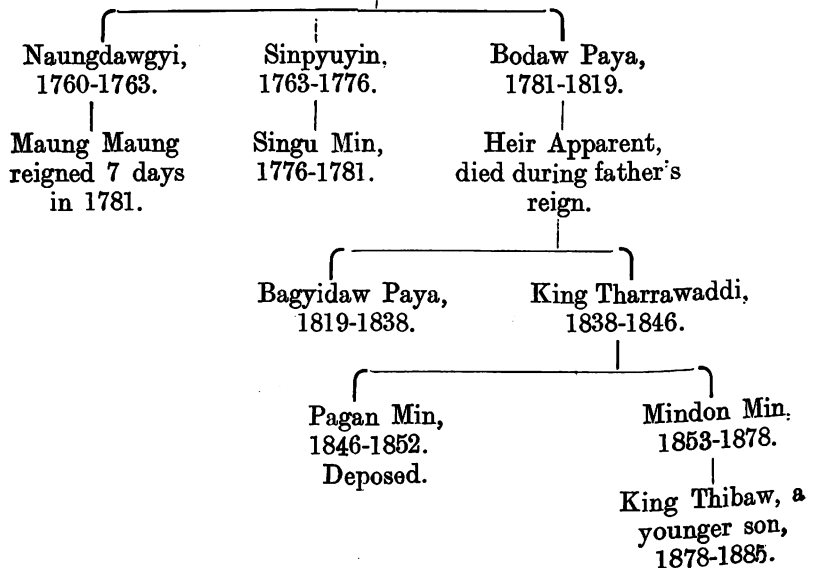
elected a monk as their King, and invaded the kingdom of Burma. Having burned the capital, Ava, to the ground, they captured and despatched the King to Pegu where he was executed. But the Pegu King's rule was of short duration, for in 1757 he was captured by Alaung Paya, or Alompra, the founder of the last dynasty, which came to an end with the proclamation previously quoted.

Alompra proved to be a king of great ability, but only reigned 6 years when he died. His origin was lowly, but he was for all that a man of action, and owed his success to his ability to lead. From being a subordinate to a village headman he became headman himself, and then by means which we need not inquire into, he raised a revolt against the Peguans and gained many initial successes. This resulted in a large increase to his following and in 1754 he not only reconquered Ava but annexed the kingdom of Pegu as well, and proclaimed himself King of Burma and Pegu, with the high-sounding title of Alaung Paya "the Incarnation of a Buddha."

He established his capital at Moksobo "the hunter's cooking place," now known to us as Shwebo.

The succession in his dynasty is shown below. It was the custom for the King to nominate his heir and successor and it is therefore not uncommon to find younger sons ruling during the lifetime of their elder brothers, as was the case with King Thibaw.

Alaung Paya, 1755-1760.



Up to the time of Alaung Paya's death the influence of foreign countries on Burma had been slight, and there was certainly not even a growing consciousness of pressure from India. A Shan-Chinese force had attacked Ava in 1659 but was defeated. Prior to this Siam and Zimme had been made tributaries as early as 1578, and the Northern Shan States suffered a similar fate; but Siam did not long remain in bondage, and in turn invaded Pegu, but was reduced to submission by King Sinpyuyin in 1765.

While engaged in the conquest of Siam, Sinpyuyin was obliged to return and defend his own capital of Ava from another Chinese invasion. This was the direct result of friction between officials and Chinese traders in Bhamo. In 1767 a Chinese army having assembled near the frontier in the vicinity of Momein, attacked and occupied Bhamo, and at the same time another column marched through the Shan State of Thienni on Ava. The southern column was repulsed and the northern one decimated. The outcome of this invasion was the inclusion of a part of the Shan States, then under Chinese suzerainty, in the Burmese kingdom.

The Emperor of China "the son of heaven," was furious at this setback and again invaded the country, but his forces met with the same fate. A further weak Chinese movement in 1769 was easily repulsed and a convention was signed at Bhamo, and since then there has been peace between the two countries.

In 1771 it became necessary to send a Burmese force against the Siamese, but the Talaing element in the force mutinied and massacred a large number of their Burmese comrades. This defection was not revenged for five years. In 1776 we see another war with Siam, which resulted in the complete destruction of the capital by fire and the carrying off of the Siamese royal family as prisoners. This crisis in Siamese history produced another leader, named Paya Tak, who inflicted heavy losses on the Burmese and established himself as King of Siam in a new capital at Bangkok. As a result of his success and a revolt in the Burmese kingdom on a question of succession, Burmese troops were then withdrawn from Siam. After five years of acute internal dissension, during which hundreds were put to death by methods too horrible to mention, Bodaw Paya consolidated his position on the throne, and having eased his conscience and the public purse in the construction of new pagodas and a new capital at Amarapura, he turned his attention to Arakan, which

had been an independent kingdom for centuries. So great was his success that in 1784, after only a year of hostilities, Arakan was annexed to the Burmesekingdom. Successive invasions of Siam were undertaken in the following two years, but the Siamese stood their ground and inflicted a severe defeat on the second attempt, and in 1791 felt themselves strong enough to react against these unjustifiable attacks and seized Tavoy, which was however retaken a year later, when hostilities were suspended. These incursions into Siam brought no gain to the Burmese King, for apart from the heavy losses he sustained in men and money, portions of the Shan States had, in the meantime, abandoned their allegiance to him and become tributaries to Siam instead.

Thwarted in his intention to conquer Siam the Burmese King now turned his attention to his north-west frontier where, on being invited to settle a disputed succession, his troops overran Manipur in 1813, and the Kubo valley was annexed to Burma. Three years later Burmese troops were sent to Assam on a similar mission.

In 1819 Bodaw Paya died, leaving behind him a ghastly record of atrocities, murders and misery which, being conscious of, he endeavoured to balance by the construction of pagodas and shrines during his lifetime.

The new King, Sagaing Min, consolidated his position by the usual round of executions. In 1820 a revolt against the Burmese occupation in Assam resulted in an augmentation of troops there and the province was annexed in 1821. Up to this time Burmese history is a record of a succession of events within or on the frontiers of that kingdom. We are now nearing the period when Burma, as a result of her annexations entailing the extension of her frontiers, is gradually being brought into contact with the British Empire in India, and to the threshold of events which led eventually to Burma becoming a province of the Indian Empire.

As we have seen, Bodaw Paya conquered Arakan in 1784, and the incorporation of that district into his kingdom brought the Burmese frontier into direct contact with that of the Indian Empire. The Arakanese are a people of spirit, and their cohesion being entirely destroyed after the annexation of their country, they contented themselves with raiding incursions against the Burmese in occupation of their country. These incursions were undertaken in the main by refugees who had taken refuge in British territory, and it is

not unnatural that the Burmese should have demanded their surrender. They were greatly incensed when their demands were not met and, throwing discretion to the winds, they took the lesser part of valour and followed the raiders into British territory. This led to a good deal of friction and to the despatch of an Envoy to Rangoon in 1785, and a Resident to Amarapura in the following year. These were treated with great indignity and withdrew without effecting a settlement. During the next 17 years mission after mission was despatched but met with the same studied insults and achieved nothing. It takes two to negotiate and two to make an agreement, and this the Burmese forgot when demanding the surrender of the Arakan raiders.

However, in 1813 there were signs that the Burmese were taking a wider view of the situation they had created, for they despatched an Envoy to Calcutta to demand the extradition of the Arakanese in Chittagong. Disappointed with their failure they entered into negotiations with the Mahrattas which however came to nothing.

In 1819 trouble commenced on the frontier of Arakan and Assam, and there were a number of skirmishes there with British troops, but it was at Chittagong that matters were finally brought to a head. In September 1823 the Burmese attacked the British on Shapuri Island near Chittagong, killing six of the garrison, and although we reoccupied the island later it became evident that the Burman King Bagyidaw was determined to settle his dispute with us by war, and in 1824 he sent an army of 60,000 men against us under his best general Bandula. The British formally declared war in March, 1824, and the operations which ensued extended over a period of two years. A force of 12,000 men under Sir A. Campbell was to advance up the Irrawaddy on Ava, and other troops were to co-operate from Assam and Kachar.

Rangoon was occupied in May, and this led to the withdrawal of Burmese troops from Assam and Kachar. The movements of the British force were now regulated by lack of transport and the monsoon rains which, in Lower Burma, reach the considerable figure of 200 inches and more a year, when roads become impassable and tracks mere seas of mud, making the progress of columns of troops impossible. The Burmese took advantage of this and concentrated their army on the line of advance of the British, with their base at Danubyu. In the succeeding operations this army was completely broken up and

dispersed and Bandula killed. Heavy mortality among our troops again slowed up the advance, and it was only after reinforcements had been received that a further advance became possible. This resulted in the capture of Prome. Negotiations proving fruitless the advance was continued to Yandabu, within four marches of the capital at Ava, and it was only then that the Burmese were induced to accept a treaty without further dilatoriness. An indemnity of one crore of rupees was demanded towards the cost of the expedition, a sum which fell far short of its total cost; Arakan, Assam and Tenasserim were ceded, and the Burmese agreed not to interfere in Manipur, Kachar and Jynhtia. A commercial treaty was also concluded and a Resident established in Ava in 1830, but he became the victim of such studied insult that he was withdrawn seven years later.

The attempts which followed in the next two years to establish a Resident under conditions consistent with his rank and position were equally unsuccessful, and it became apparent that diplomatic relations could only be maintained by a show of force. During this period two kings were removed from the throne on the grounds of insanity. Bagyidaw in 1837 and his successor Tharrawaddi in 1846. We are told that the chief amusement of the latter was to order any courtier who might be standing by to kneel down while he scored a chessboard on his back with his sword. This was cruel enough, but pales beside the atrocities of which the Kings were capable when really aroused.

After the withdrawal of our Resident in 1840 matters went from bad to worse. Control by the King in Ava was very local, and at times did not extend beyond the walls of his own palace. This gave scope to unscrupulous underlings who were not slow to profit by the existing conditions. In 1846 the Governor of Pegu took matters into his own hands and, apart from the unjust exactions which he made on traders, crowned his achievements by causing the arrest of a British shipmaster on a false charge, followed soon after by the arrest of another shipmaster. Fines, releases, re-arrests and more fines followed until final release was obtained, when complaint was made to the Indian Government. The then Governor-General, Lord Dalhousie, was not the man to sit down under such treatment, and a letter was sent to the King of Burma in which grievances were detailed and demands made. This led to the supersession of the offending Governor, but his place was filled by an even more rapacious man, who

continued the policy of oppression of his predecessor in a much more harsh and brutal manner.

Further representations were made but without result, and in March 1852 it became necessary to send another ultimatum to Amara-pura. No reply was received and troops having been despatched to Rangoon, Martaban was captured in April 1852, and Pegu in the following June, when operations had to be suspended owing to the rains, although an advance was made to Prome in October. As the Burmese shewed no desire to negotiate and Lord Dalhousie wished to terminate the war, a proclamation was issued in December 1852 proclaiming Pegu as part of British India and placing the frontier between it and the Burmese kingdom from the Salween to Arakan, along the parallel of  $19\frac{1}{2}$  degrees north latitude. No treaty was suggested and none was signed, and although the second Burmese war gave us additional territory it was obvious that owing to lack of agreement it could only be retained by force. Its pacification took ten years to accomplish. As to the King of Burma, his attentions were required elsewhere. Unpopularity with his people and family jealousy and popular hatred for his atrocities, led to rebellion and he was deposed, while his half brother Mindon Min reigned in his stead.

The consequences of the annexation of Pegu were profound, and laid the basis for the annexation of the whole of Upper Burma later. The King of Burma was now confined to inland territory with no access to the sea except by the consent and good offices of his new neighbours, while we could not expect the one half of his kingdom now under our control to co-operate with us with any great enthusiasm. The Burman had many causes for complaint against his rulers. Cruel, unscrupulous and rapacious to a degree, history does not afford a single instance of a Burmese ruler free from these vices. Yet it must be admitted that in spite of these traits, the people remained extremely loyal to the throne and its occupant for the time being. This feeling exists today, and there can be no doubt of the loyalty of the Burmese nation to the Imperial throne and the King-Emperor.

After the second Burmese war a new commercial treaty with King Mindon Min threw open the Irrawaddy to free navigation, and regularized the payment and collection of custom dues. It was however a considerable time before diplomatic representation was established at the Burmese Court. The next ten years are a record



of new commercial treaties, evasions and disputes and further indignities for the British Resident in Mandalay. King Mindon Min died in 1878 after a rule which is noteworthy for its tolerance, in a comparative sense, with that of his predecessors. It was hoped that the succession of his younger son Thibaw would provide an opportunity for placing our relations with the Burmese kingdom on a better footing than had been the case. But Thibaw had not yet had time to show himself in his true colours. He began his reign by removing all likely rivals, and the majority of his relatives were massacred. For a time the administration was utterly disorganized, and there was no control outside the precincts of the palace, where the power had passed into the hands of unscrupulous and blood-thirsty ministers. There are many records which shew the dreadful manner in which these massacres were executed. One example, quoted from Nisbet, should provide sufficient matter to satisfy the most curious, He says ;

On the night of the 15th February, 1879, the jail to the west of the main palace buildings was cleared for the reception of the political prisoners, and a large hole was dug in the main precincts. The massacre was begun on that night under the supervision of the personal followers of the King and was continued on the following nights, the executioners being the worst among certain ruffians who had just been released from jail in order to prepare it for being the scene of the crime. Excited with drink they killed their victims with bludgeons and strangled with their hands those who still had strength left to utter cries. The bodies of the women and children were thrown into the pit prepared in the jail, while on the following night eight cartloads of the corpses of the princes were removed from the city by the western gate (the accursed gate) and thrown into the Irrawaddy according to custom. The massacre was continued, etc. etc....."

This is sufficient to indicate the manner in which Burmese Kings removed obstacles in their progress to the throne. No risks were taken, no quarter given.

Protests were of course raised by our Resident and the reply of the King was to the effect that, being an independent sovereign, he was entitled to prevent disturbances in his own country in such manner as he might think fit. The remonstrances of the Resident had however given him food for thought, for increases were made in the army and an augmentation of troops along the frontier followed.

The hand of the Indian Government was however stayed by happenings in the remote confines of Afghanistan, where the second Afghan war was in progress, and the forbearance of the Government at this time can only be attributed to this. The disasters of this war, and the distressing reverse at Maiwand, lost nothing in their telling by the time they arrived in Mandalay, and merely served to stimulate Thibaw to increased barbarities and insults towards the British. These became so acute, and the treatment of the Resident so inconsistent with his position, that he was again withdrawn, and the Government were once again without direct representation in Upper Burma. This gave Thibaw his chance, and he was not slow to take advantage of it. The history of the next five years is a record of increased barbarities, but the outstanding incident, which served to hasten the downfall of the King, was the despatch of an embassy to France. The negotiations which passed are too lengthy to be considered here. The duplicity with which they were conducted only became apparent when the terms of an agreement came unexpectedly into our hands in July 1885. A French bank was to be established in Mandalay; arms, ammunition and military stores were to be supplied through Tonquin. This was a sufficient indication that foreign influences were being invited to Upper Burma to our exclusion, a state of affairs which the Government were not disposed to tolerate. They had not to wait long for development, for a *casus belli* was provided from a quite unexpected quarter. For many years past the great teak forests in Burma had been worked by the Bombay-Burma Trading Corporation, as indeed they are in the main to this day. In 1885 the Corporation had occasion to complain to government of the unjustifiable interference of the Ministers of the Burmese King in the working of their contract. Under the agreement then in force the Corporation paid to the King a large sum yearly on the basis of logs extracted from the forests. The King now trumped up a charge that the Corporation had not paid for all the logs they had extracted, and imposed a fine for double the amount alleged to be due, some £ 150,000, with an additional sum of £ 30,000 for labour. A fine of this enormity was a serious matter for a trading concern, and the Corporation had no other course open to them but to appeal to the Indian Government, who eventually referred the matter to the Cabinet at Home. In August a request was sent to Thibaw that a fair trial should be afforded the Corporation, who could not afford

to accept an arbitrary award of this nature, or in default the cancellation of their leases. The King delayed his reply until September, when he declined to suspend action against the Corporation and began definitely to interfere with their employees. This resulted in the dispatch of an ultimatum demanding the establishment of definite trade relations, the acceptance of a Resident and the satisfactory settlement of all outstanding disputes. A reply was received in November. It declined to reopen the case of the Corporation, and indicated that if the British wished to establish relations they were at liberty to do so "as in former times."

Thibaw further indicated that he intended to manage his external affairs himself. This reply contained a sufficiency of insolence to call for further action, the need for which was further accentuated two days later by the issue of a proclamation threatening expulsion to all British subjects, and the annexation of their territory, if they attacked the Burmese. On the 10th November the British Cabinet sanctioned an advance on Mandalay. The operations which followed were short and decisive, and British troops entered the city on the 28th November, 1885. The proclamation issued six weeks later, and quoted at the commencement of this article, marked the close of the reign of a king who, for his cruelty and unscrupulousness, takes a front seat in the assembly of similar monstrosities with which history provides us. It also marked the incorporation of a rich province, with a population of races who vie with the best of us in their loyalty to the Crown, and, let us hope, it opened out a new vista of peace and prosperity, of freedom and liberty from a tyrannous and bloodthirsty sway, which had been the lot of the Burmese people from the dawn of their history.

It must not however be supposed that the pacification of the country was easily achieved. Burman loyalty to their King is traditional, and there were many besides who had their own axe to grind, and were not disposed to give in without striking a blow. Their activities engaged the attentions of a large military force for over two years, and the guerilla warfare which followed added many lives to the long list of those who have died for the Empire, and increase of glory to those regiments who took part in it.

#### GEOGRAPHY.

Burma, including the semi-independent Shan States, occupies an area of some 230,000 square miles, with a population of 13 millions.

In the north it is bounded by the Tibetan Province of Zayul, with its vast mountain masses and impenetrable jungles. On the east by the Chinese Province of Yunnan, the French Province of Tongking, and Siam, and on the west by Assam. Its physical features are few and well-defined.

Its great waterway the Irrawaddy, rising in the obscure regions beyond the Tibetan border, practically divides the country into two parts, and enters the sea near the great port of Rangoon. Navigation is possible far north as Bhamo and a regular fleet of steamers ply between long-established stations along its banks.

The journey upstream is negotiated in some 10 days, and downstream in a considerably less time. Navigation however is not without its dangers, and the existence of sandbanks and the very heavy rainfall during the monsoon period accentuate the necessity for careful navigation.

The Irrawaddy is vital to the prosperity of the country. Although, compared with railways and roads it is a slower means of movement, the large number of districts it serves owing to lack of rails and roads is of great importance. Prior to the opening of the railway from Rangoon in 1877, and its extension to Mandalay in 1889, it was supreme in the conveyance of heavy goods, and greatly facilitated our operations during the Burmese wars. While its utility as a carrier and as a means of communication from south to north is undisputed, it has to a certain extent prevented close liaison and co-operation between the districts situated on its opposite banks. No bridges exist, although one is now under construction at Sagaing, and the only means of intercourse have been ferries, country boats and Irrawaddy Flotilla Company steamers.

Its most important tributary is the Chindwin river, which joins it from the west in the vicinity of Pakkoku. This river is navigable throughout the year as far as Homalin, to which town a regular service of steamers run. In the north, below the confluence of the Mali Kha and Nmai Kha, which form the Irrawaddy, are the Mogaung, Namkong, Mole and Taping rivers, but, with the exception of the first, which is navigable for some distance, the remainder, owing to rapids and shoals contribute little to the water carrying capacity of the country. Further south is the Shweli river from the Shan States, and the Myitnge river which enters the Irrawaddy near Mandalay. The latter is unnavigable for any distance, and since it is only spanned

by one bridge presents a considerable obstacle to movement. The bridge which is near Mandalay carries both the rail and road, which makes it a work of some importance.

In the east, running parallel to the Irrawaddy are the Sittang and Salween rivers. The former rises in the Shan States and is small in size until it reaches southern Burma. The Salween has characteristics not found in the others. It is unnavigable except in limited and broken stretches. Its basin is extremely narrow and drains a very restricted area, while its valley has been described as a ditch with banks varying from 3,000 to 6,000 feet in height. Its actual length is believed to be greater than that of the Irrawaddy. Along its banks is scenery of magnificent and rugged grandeur, but the banks are high and troublesome, and it is only in certain places that passage is possible by ferry, while the construction of a bridge has for financial and engineering reasons not yet been undertaken. It will be a considerable feat when accomplished.

The Mekong river rising in Tibet is also of great length and forms the boundary for some 100 miles between the Shan States and French Indo-China.

It is not suitable for extended navigation, although its utility is greater than the Salween, and its carrying capacity has been greatly exploited by the French. A glance at the map will show more closely the location of these rivers. They present a series of parallel struts, with smaller struts at right angles to them in their northern reaches. This gives us an index as to the general lay out of the mountain masses in the country. In the east are the Shan and Karen hills, forming for a great part the eastern boundary, with abutments towards the Irrawaddy near Mandalay. The parallel ridges in the northern portion of these hills do not attain a high elevation, although some peaks reach 4,000 feet, while in the eastern portion the whole go to form a great plateau known as the Shan plateau, which has an average height of 3,500 feet, and is intersected here and there with peaks of 7,000 feet. There is supposed to be no other area of its size in the Indian Empire which is so well adapted for European colonization as the Shan plateau.

Further south the Pegu Yomas commence to rise in the vicinity of Kyaukse, and divide the basin of the Irrawaddy from that of the Sittang river, and still further east the Paunglaung Hills rising in the Shan plateau divide the Sittang from the Salween. In this range are to be found peaks of 8,000 feet and more.

Further east still is the range which marks the limit of British territory and the border of Siam, and interposes between the Salween and Mekong rivers.

In the northern section, in the Bhamo and Myitkyina districts are four plainly defined ranges. The eastern Kachin Hills dividing the basin of the Irrawaddy from the Salween, the Kumon range, which stretches out from near Assam towards Mogaung; the Kaukkwe Hills starting from Mogaung and running in a southerly direction to the west of the Irrawaddy, and the range running from the Jade Mines to the Hukawng Valley. These ranges are a labyrinth of great masses of earth, with dense and impenetrable jungles, containing a large portion of the great timber reserve which is one of the main sources of the wealth of the country. They are sparsely populated, while inter-communication is effected by mere jungle tracks, and the problem of their development and civilization is only partially solved. In the west are the Chin Hills, which are a continuation of the mountain mass forming the eastern boundary of Assam, and known in their southern portion as the Arakan Yomas.

From the above brief account a general birdseye view of the configuration of the country can be obtained.

Running from the west, up north, and then down along the north and north-eastern frontier, the mountain ranges form a rough outline of the shepherd's crook, while between the ridges we have the rivers running from north to south, and from east to west where these ridges turn to the Irrawaddy, while the outstanding feature of all is the great valley of the Irrawaddy inside the crook, down which the river flows to the sea. This valley is the real Burma. It contains the bulk of the population, and the main currents of Burmese history have run their course along its banks for generations.

From the point of view of defence, the physical features briefly outlined are instrumental in protecting the province from outside aggression. With a length approximating to some 3,000 miles, 1,000 miles of the frontier march with China; 125 miles with French Tongking and some 500 miles with Siam. At its northern most extremity is the tribal territory of Khamti Long of enormous natural strength, and it is no exaggeration to say that in most parts passage into Tibet is only possible on the hands and knees. This mountain barrier continues to the Taping river, where it turns to the west and approaching Bhamo forms what is known as the Tengyueh salient.

It then turns due south then east, and traverses plains for 100 miles to the Salween, and again turns south to the Mekong river, where it meets the boundary of French Tongking.

Communications across this boundary are few, and those which do exist are quite impassable during the rainy season, and pass through such difficult country, that the maintenance of a large force along them could not be undertaken without further costly road construction.

The three main routes are:—

- (1) Myitkyina—Tengyueh, *via* the Kambaiti Pass, 111 miles.
- (2) Bhamo—Tengyueh, *via* Kulikha, 157 miles.
- (3) Mandalay to the Kunlong Ferry on the Salween.

There is also a trunk road running from Myingyan through the Shan States to Kengtung, but beyond the Salween, which is crossed at the Takaw Ferry, vehicular movement is impossible during the rains, and in the open season, owing to steep gradients and lack of good bridges, the most favourable conditions are necessary for a through run. The Salween presents an obstacle at Takaw, where the means of crossing are confined to dugouts and rafts, whose carrying capacity is very limited, although cars can be carried over.

The nature of the frontier then is such that movement in the mountainous and heavily wooded portions in the north is impossible on a large scale, while in those parts where physical difficulties are not so obvious the communications are so limited that only the smallest of forces could be subsisted along them.

Raids by small parties are of course possible, and in the present unsettled state of China it will be small wonder if they do increase, but under existing conditions they can never assume serious proportions, and there is no reason to believe that communications on the Chinese side of the border are any better than they are on ours. Burma has however been invaded from this direction in the past, and as long ago as 1767 Chinese forces invaded the Shan States several times, and even captured Bhamo. It is however difficult to determine their size, owing to the untrustworthiness of the Yazawin Chronicles, but the camping sites on the routes they followed do not suggest that they could have been very formidable in numbers.

#### RACES.

It is impossible in a short article, even if the writer possessed the knowledge, to consider even briefly the large number of races and

sub-divisions of race which inhabit Burma. Remarks will therefore be confined to those races which are of greatest interest to-day. First and foremost is the Burman, who contributes some 8 millions to the total population of 13 millions. Then in order of numbers the Karen, Shan, Chin, Kachin.

Apart from these indigenous races there is a large alien population of Indians and Chinese, totalling just over a million. These are mostly traders and merchants, and are to be found generally in the towns, and especially in Rangoon, which has a large Indian population. Taking these races in turn:—

#### *The Burmese.*

To the westerner the term “Irish of the East,” which has been applied to the Burman, might convey in a small measure the type of individual which comprises the bulk of the population in the “Land of Pagodas.”

In appearance taller than the Karen and slighter in build, his clean and neat appearance, and elegant mode of dress stamp him as being in a higher grade of civilization than the hill tribes shortly to be considered. The Burman has a sense of humour which often carries him to ridiculous lengths. The cares of life weigh lightly upon him, and the Burman is seldom met who is in the least concerned as to the source of his next meal. Thriftiness is foreign to his nature and he is much given over to pleasure. Probably half his life is spent in attendance at Pwes, or theatrical performances, which are extremely popular throughout the country. In fact the lure of these performances is so great that if reliance is placed entirely on Burmese servants the household might easily be deplete of servants when the theatricals appear; and no attempt is made to conceal the reason for absence, for of course “everyone goes to the Pwe.” Much has been written about the character of the Burman, and those who have been unfortunate in their dealings with them are naturally loud in their denunciations. There is no doubt he needs a lot of knowing, and this of course implies a knowledge of his language, but if his whims and fancies are taken into account he has many sterling qualities. A good and bad man are good and bad the world over, and Burmans are most certainly not bad. Thus, they hate restraint and are not amenable to discipline, and the light-hearted way in which they go through life indicates that freedom is a very precious heritage which they greatly prize. Small wonder then



that they do not fit in well with army life. The Burman looks on life as a bioscope; if the productions are not sufficiently varied he changes his venue, and in this respect the army cannot cater for him, and as a result he caters for himself. It has been recalled by some that during the days of the Burmese kings the Burman soldier was loyal and faithful and that cases of desertion were very rare. It must be remembered that this was due to the dreadful code of discipline then in existence. Then a man's family stood surety for his good behaviour and fidelity, and any lack of this might result in a penalty which extended to their complete extermination. All were therefore interested in the good behaviour of their man. This idea has no place in the present code. C. B. or R. I. have no terrors, and loss of pay was nothing to a man who had no anxieties for the morrow, and who could look upon the evil of the day as of no consequence. If power to yield the stick were present it would have been a different matter, for that is the type of punishment the Burman understands. The knowledge that the stick existed would probably have sufficed; it would rarely have been needed.

The Burman is intelligent and extremely quick in learning, and this is probably one of the causes for his lack of stability, for he is always wanting something new.

When trained he excels as an athlete. One must however admit that he is not over industrious, although he can be capable of great exertion. After all, in a country where the scratching of the ground for a few hours will produce food for a year there is little need for over-exertion. That is why so many Indian coolies are seen in the country doing work he will not touch. Honest? Yes, when you know him, but he does not mind "borrowing" when the occasion demands, and readily admits it.

While all the races of Burma are intensely interesting the Burman is lovable as well, when he is known.

Most will admit that, but that is not to say that his virtues definitely outweigh his vices.

In spite of these he possesses an outlook on life which must make us envious when we think of it. A Buddhist, and superstitious to a degree, he mingles with his beliefs a certain amount of spirit worship. Being a Buddhist he has no caste, a good thing for him, otherwise his present care-free existence would be impossible.

*The Karen.*

The word Karen is the generic term for the three main divisions of the race, which are known respectively as Sgaw, Pwo and Bwe. Their origin is obscure, and their traditions claim an original habitat in the vicinity of the desert of Gobi, beyond Tibet. They were certainly settled in China before they migrated to Burma, which appears to have been the result of the pressure exerted on them by the Shans. This accounts for the main centres of their activity being now located in south Burma. The dialects of these three tribes are quite distinct, and although grammatical construction is similar the spoken tongue is quite different. A knowledge of the Sgaw dialect will not help in conversation with a Pwo or Bwe. The Bwes are found in the mountain fastnesses south of the Shan States, where civilization has been slow to penetrate, and they have therefore retained those characteristics which were theirs centuries ago. Such is not the case with those who live in southern Burma, and especially in the deltaic districts of the Irrawaddy. There they are completely surrounded by Burmese influences, and it is not surprising that many of them have become Burmanized. The great outstanding difference is found in their religion. Originally Animists, the traditions which their fantastic beliefs possessed led them to expect salvation from the west, and they have become ready converts to Christianity, mostly of the American Baptist Mission persuasion, while the wilder tribes of the mountains still cling to Animism. Generally speaking the Burman despises the Karen, not entirely on account of his religious susceptibilities, but there can be no doubt that the Karen has developed into a healthy and loyal community of whom the country may well be proud. In appearance he is shorter and stockier than the Burman, with a much fairer skin, and owing to the excellent schools provided by the missions many are well-educated and a large number speak English.

They have been enlisted into the Army in the last ten years and are smart and much above the other races, the Burman excepted, in intelligence, while as athletes they surpass any of them. Their population in the last census was 1,220,356.

*The Shan.*

The Shans are to be found throughout the whole of the Shan plateau, and also closely intermingled with the Kachins in the north

and north east. Their advent to Burma appears to have occurred about 2,000 years ago, when they were very closely connected with the Chinese, and the nidus of their expansion was undoubtedly south western China. They have many characteristics in common with the Chinese: a light complexion, with pronounced almond-shaped eyes and strong Mongolian features, while their language resembles the Chinese in many respects.

After the migration to Burma the remnant in China fell on hard times and the effects of Kublai Khan's conquest of China forced the remaining elements into Siam, where they formed a separate kingdom. The new Shan State in Burma passed through many changes of fortune. At first strong and prosperous, the centre of its strength lay along the Shweli river, until, owing to a number of causes, it became a vassal of the King of Pagan in the 11th century. After two centuries of oppression the Shans exerted themselves, and in the 13th century a great expansive movement began, when they advanced to Arakan, where they destroyed the capital, penetrated into Assam, and as far as Moulmein in the south. At this time they had reached the zenith of their power, but it was this expansion which led to their downfall. For in a vast dominion such as they had obtained, almost entirely bereft of effective means of communication, control was bound to be weak, and as a consequence the conquered territories one after the other threw off their allegiance. By this means the independent kingdom of Siam was definitely able to establish itself. Frequent wars with the Burmese now occurred and, to add further to their troubles, incursions from the Mongols. This was more than the organization of the Shans could stand, and their power gradually weakened until, in 1604, it came to an end and the Shans lost their status as an independent people. They are a quiet and simple folk, given over almost entirely to agriculture and trading, and their appearance does not suggest that they possess any of those qualities which must have been theirs when they overran Burma five centuries ago. They are of a very independent nature, and although industrious and honest do not possess much drive and initiative. They were tried in the army, but although amenable to discipline the quiet nature of their village life, and the even tenour of their ways militates against them possessing the essential elements which go to make a good soldier. In religion they are Buddhists. The various Shan States are ruled by Sawbwas,

assisted by Superintendents of the Frontier Service as Advisers, and their loyalty and devotion to the Crown is unquestioned. At the last census their numbers totalled 1,017,987.

#### *The Chin.*

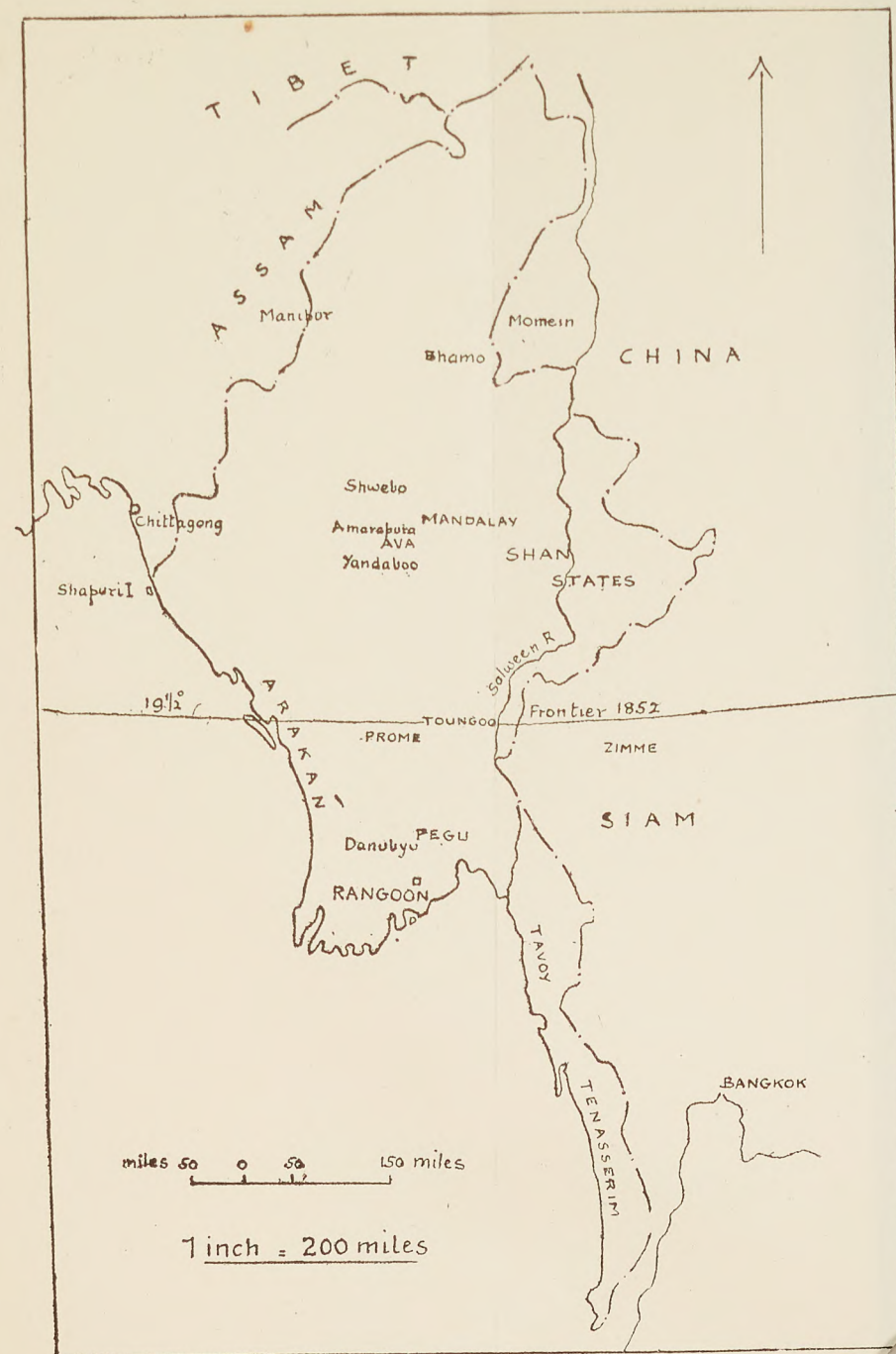
Chin is the name appended to the tribes which inhabit the country west of the Chindwin river. There are many sub-divisions who have lived for generations in the hill tracks and areas from which many take their name. So far civilization has touched them but lightly, and they probably now live under the same squalid conditions which has been their lot for generations. In the main they are well-built, strong-limbed men of smart appearance, but some are notably small in stature as the Chinbok. They are fairly dark skinned and possess many of the characteristics of the Gurkha. Stolid and reserved they have an extremely local outlook, and although they possess a keen sense of humour, they have not the same bright nature as the other races. They provide valuable recruits for the army, and make smart and reliable soldiers and the camaraderie which exists among them is a most valuable asset in the development of *esprit de corps*. They are thrifty in nature, and there are few who do not leave the service with considerable savings. Animists in religion, their population at the last census totalled 300,700, as far as could be ascertained.

#### *The Kachin.*

Owing to the lack of a script and the apparent non-existence of cave carvings and writings which have assisted archæology in other parts of the world, the Kachins have no record of their origin and growth except that which rests on tradition. This asserts that their original habitat was in the confines of Tibet, and the name they themselves apply to the home of their ancestors "Majoi shingra bum," meaning literally a "naturally flat mountain," seems to support this belief. The Kachin migration to Burma was comparatively recent, probably 500 years ago. They settled in the first instance in the wild jungle-clad mountains of Upper Burma, from where, by the process of raiding and infiltration, they encroached more and more on to Burma proper, until they were definitely stopped by our annexation in 1886.

In his natural state the Kachin is ignorant and uncivilized. The struggle for existence which he is still experiencing has made him into a formidable fighter, with a depth of courage seldom surpassed by savage peoples. Of a stocky build, and an average

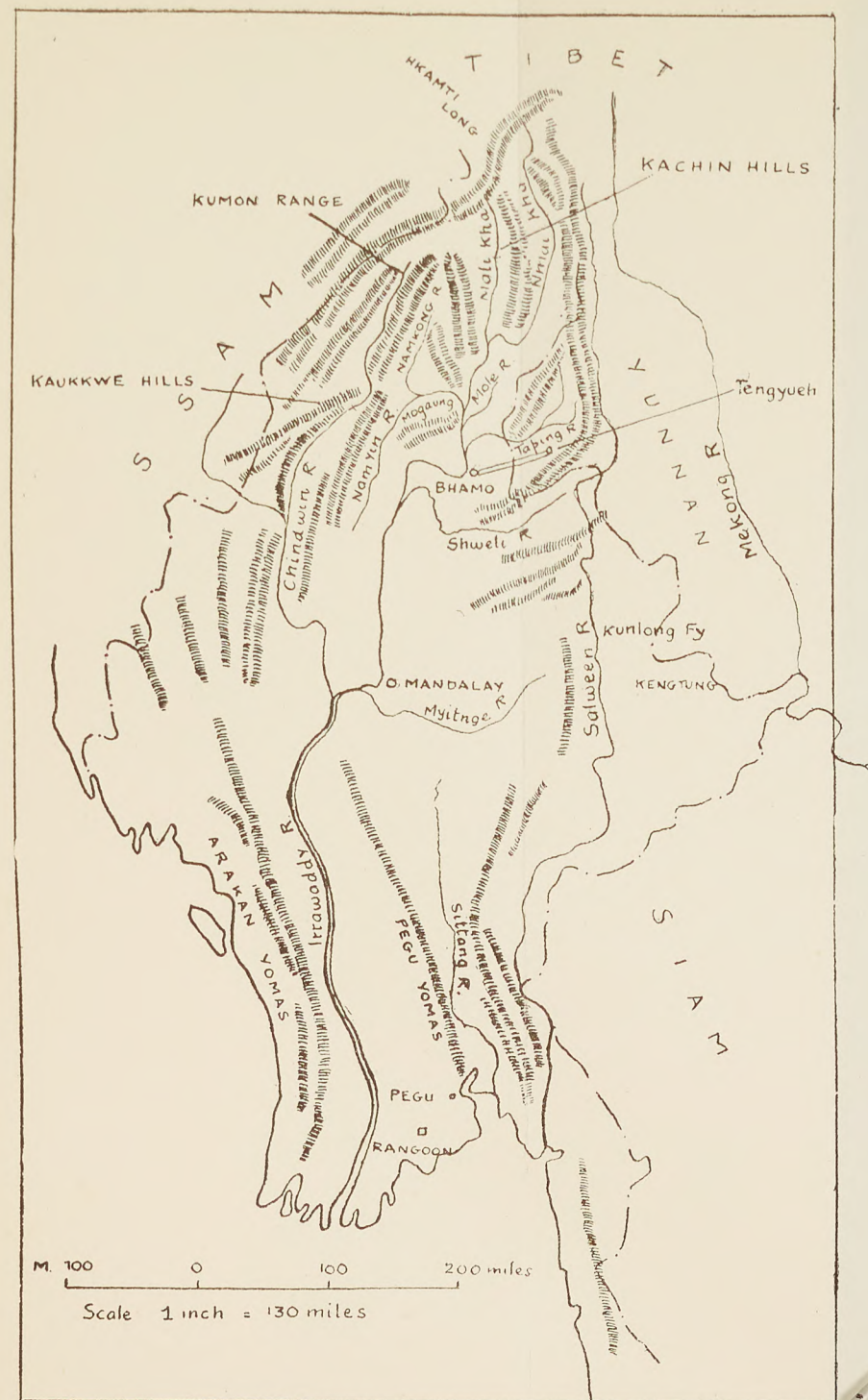
height of five feet three inches, his complexion, according to his habitat and the effects of intermarriage, varies from black to a light olive colour. He has distinctly Mongolian features, but not so pronounced as those of the Burman and Shan. His hair long and unkempt, and his coiffure includes a glorious bun held together by enormous hairpins and wooden combs. Experience shews that he is honest to a degree. The Kachin has a fine sense of humour, and when disciplined is very loyal and shews great devotion to duty. He has a high moral code, and although young Kachins are allowed a great deal of freedom there are few cases of infidelity after marriage, and divorce is practically unknown. In the army they have proved themselves steady and smart. They embrace most fantastic animist beliefs, but the Missions in Bhamo and Myitkyina have done much to educate them, and the number of Christians is increasing, but an English speaking Kachin is still very rare. In their villages they are ruled over by their own chiefs or Duwas, and live in villages varying in size from 3 to 60 houses, and snatching a precarious livelihood from the spare cultivation in the vicinity. Their houses differ considerably from the small light bamboo structures of the Burman and Shan. Some are as much as 150 feet in length, and are very solid structures. All contain a special guest room for visitors, who are assured hospitable treatment. In fact it is one of the duties of the chief either to entertain visitors himself or to provide for it, and a guest had a right to demand it. They are a great acquisition to the army and the Burma Military Police, and have been enlisted in the latter since 1897. At the census they totalled 288,847 as far as could be ascertained.



Sketch map to illustrate History

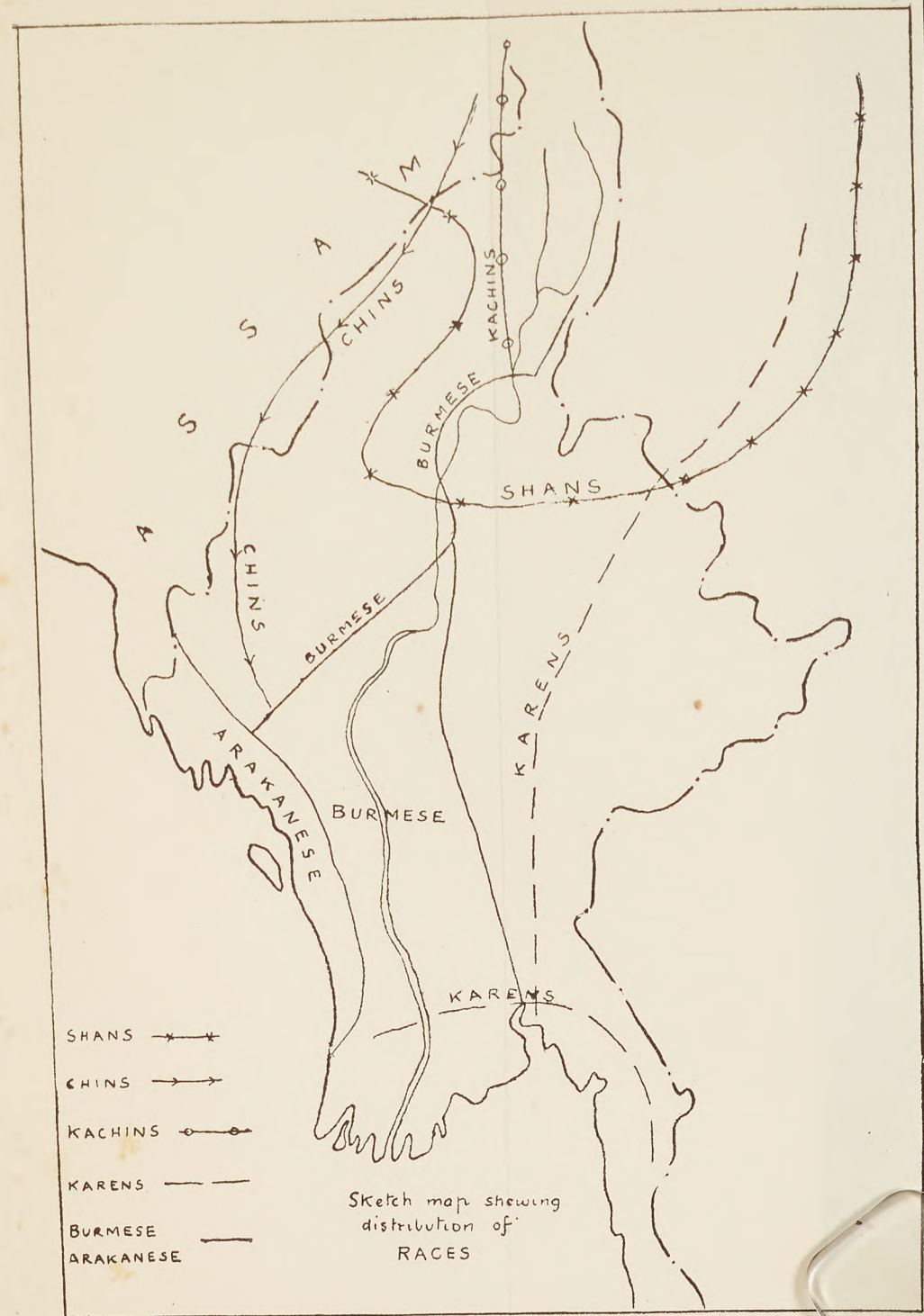














## MILITARY NOTES.

### CHINA.

#### *The Chinese Navy.*

A naval contract between China and Great Britain has been signed in Nanking by the Chinese "Minister for the Navy" and Sir Miles Lampson, His Majesty's Minister in China.

The terms of this contract include provision for :—

- (a) The despatch of a British Naval Mission to China, consisting of one commander, one lieutenant and four warrant officers.
- (b) The despatch of eight Chinese sub-lieutenants, and twelve Chinese midshipmen for training in English naval establishments.

There is also included a clause under which certain small warships may be built for the Chinese Navy in British yards.

### FRANCE.

## NOTES ON MILITARY REVIEWS.

#### "REVUE MILITAIRE FRANCAISE."

Published by Berger-Levrault, Paris. Price, 5.50 francs.  
May, 1929.

#### 1. *The Abyssinian Problem.* By Commandant Cornet.

A description of the country and its present state of development. Emphasis is laid on the difficulty experienced by any foreign power in obtaining concessions from a country whose independence is so jealously guarded.

At present France owns the only railway, which runs from Adis Abeba (the capital) to the coast at Djibouti.

Italy has a good deal of influence, particularly in the west, and she is trying to extend her influence by developing communications through Eritrea.

Great Britain tried to obtain concessions to build a dam near Lake Tsana so as to hold up the flood water. This would have

increased the flow of the Blue Nile and would also have been of considerable benefit to Abyssinia. The necessary permission was, however, refused, though quite recently there was a rumour that the contract was going to be given to an American firm.

2. *The Rear Services of the 10th French Army during the Somme Offensive in 1916.* By General Thevenet.

An interesting description of the arrangements made for the supply of food, ammunition, &c., to the 10th Army, which by the autumn of 1916 consisted of 10 corps.

3. *The 7th German Army "En Couverture," August, 1914.* (Part I.) By Captain Marchal.

The first instalment of an article describing the task and action of the 7th German Army on the outbreak of war in 1914. This army, consisting of three corps, formed the left wing of the German forces, and was responsible for the front from Strasbourg to Basle.

4. *Three Lectures given to the General Staff in 1902.* By General Palat.

A criticism of three lectures given in 1902; one by Captain Fournier and two by Colonel Berrot. The criticism is interesting as the lectures were given towards the end of the South African War, from which various lessons are drawn.

"REVUE MILITAIRE FRANCAISE."

Published by Berger-Levrault, Paris. Price, 5.50 francs.  
June, 1929.

1. *The 42nd Division at Montdidier, 8th August, 1918.* (Part 7). By Colonel Grasset.
2. *The anti-aircraft defence of higher formations.* By Lieut.-Colonel Vauthier.

A description is given of the general system of anti-aircraft defence employed by various countries: it is stated that in England the command of the whole of the anti-aircraft defence is centralised at G.H.Q. and that army and corps commanders have no authority over anti-aircraft units in their zone of operations. The author then works out by mathematical formulæ the number of anti-aircraft units required for the protection of different formations under various conditions.

3. *The 7th German Army "En Couverture," August, 1914.*  
(Part 2.) By Captain Marchal.

This instalment describes the concentration of the 7th German Army and their plan of manœuvre, with an account of their approach march from the morning of the 9th August.

4. *The pacification of the unsubdued districts of Africa.* By General Armengaud.

An interesting article on the possibilities of pacification and control by means of air forces with or without the co-operation of troops. The author points out that in order to pacify a country, it has to be penetrated, occupied, and finally policed. He gives several examples, including the British in Waziristan in 1925, of operations by aeroplanes which have resulted in the submission of the district concerned. He also shows how a great economy in personnel can be achieved by occupying a country with a few ground troops and a squadron or two of aeroplanes centrally situated. This method is also admirably adapted for police work, as provided news of any outbreak can reach the aerodrome speedily whether by T.S.F. or by other means, air forces can be despatched with very little delay and will arrive on the scene of action within a few hours of any outbreak which may have occurred.

General Armengaud gives several examples of the effective use of aeroplanes in Morocco and the Riff, and is of opinion that this method should be more extensively practised in the future.

5. *The genesis of Neufchateau.* By Commandant Pugens.

A description of the events leading up to the battle of Neufchateau on the 22nd August, 1914. There is an interesting character sketch of the Duke of Wurtemberg, who, unlike most royal army commanders, took charge himself instead of being taken charge of by Luttwitz, his Chief of Staff (the said Luttwitz afterwards achieved notoriety in connection with the Kapp ("putsch")). The author emphasises that Von Moltke let every army commander have his head, with the result that the Duke of Wurtemberg found himself called on for help in both directions with no orders from O.H.L. (Supreme Command) to guide him.

*Introduction of One Year's Service Bill.*

The following is a summary of a report by the Minister of War showing the results of recruiting from 1st October, 1928, to

1st April, 1929, of the various categories of personnel required to enable the One Year's Service Bill to be introduced :—

Number of engagements during the 6 months.	Approximate increase during 6 months.	Total number now serving.	Total number required.	Number short.
(a) <i>Militaires de carrière.</i>				
8,150	6,000	89,000	106,000	17,000

This is considered satisfactory.

(b) *Agents Militaires.*

..	1,493	7,584	15,000	7,416
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Recruiting continues, and it is considered that the present six months will show a further increase.

(c) *Employés Civils.*

..	2,000	26,000	30,000	4,000
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This is very satisfactory.

(d) *Gardes Républicains Mobiles.*

..	1,200	4,906	15,000	10,094
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Although there is a large shortage, this is apparently due to the fact that recruiting has been slowed down by the lack of accommodation. There is no dearth of candidates.

#### *Conclusion.*

The increase in recruiting is sufficiently steady to warrant the assumption that the One Year's Service Bill will be put into force as anticipated.

#### *Increase of pay to professional soldiers.*

In order to increase recruiting of professional soldiers, particularly in the Army in Africa, a decree dated 29th June, 1929, has been published raising the pay of Frenchmen (*de carrière*) serving in the Foreign Legion and the various disciplinary units in Africa.

The re-engagement bounties of Frenchmen serving in Algeria, Tunis and the Levant, of foreigners in the Legion and of North African natives are also raised.

Various other small increases in pay of bounties are made both to re-engaged Frenchmen and natives in order to make the life of a professional soldier more attractive.

*Officers d'administration.*

A law has now been published, dated 9th July, 1929, absorbing *officiers d'administration* into the different arms of the service.

It is interesting to note that those officers who are absorbed will not be debarred from promotion during the next three years owing to not having done the full time in command, but that after 9th July, 1930, a period of six months of command will be necessary before promotion.

JAPAN.

*Creation of a Ministry for the Colonies.*

The creation of a Ministry for the Colonies was foreshadowed in January, 1929, when the annual estimates for 1929-30 were presented to the Japanese Diet.

The estimates included a sum of 945,335 yen (approximately £90,000) in addition to the following items:—

	Yen.
Encouragement and protection of emigrants ..	796,928
Increase of expenditure on Hokkaido colonization ..	3,297,792
Encouragement and protection of persons trans- planted from one locality in the Empire to another .. .. .	6,561,497

These estimates were approved by the Diet in the last session and a bill authorizing the creation of the new ministry was duly passed. According to the Press the ministry was formally inaugurated on 10th June.

It appears that hitherto the various Colonial Governors and Governors-General have been responsible to no particular government department, and, although they pay occasional visits to the capital, there has been no special authority with whom they were expected to discuss affairs. Consequently there has been little publicity about what occurs in the overseas possessions. The new Colonial Ministry will provide the necessary organization for keeping the Government and the country *au fait* with Colonial affairs, and will exercise a general supervision over Colonial administration.

Considerable discussion has taken place as to whether Korea should be placed under the jurisdiction of the new ministry. Admiral Viscount Saito, who was Governor-General of Korea for 8



years up to 1927, and proved himself a most enlightened and able ruler, is reported to be against the project; and it is believed that his views are shared by Japanese officials in Korea. Viscount Saito has always considered that Korea should have the status of a Dominion, rather than a Colony.

Excluding the islands held under mandatory rights from the League of Nations, Japan's overseas possessions consist of:—

- (1) Formosa and the Pescadores. (Taiwan and Hōkōtō.)
- (2) Southern Saghalien. (Karafuto.)
- (3) Korea. (Chōsen.)
- (4) Leased territory of Kwantung.

Of the above, Formosa and Korea are administered by Governors-General; and Saghalien and the Leased Territory by a Governor.

The mandated islands have a permanent civil officials, with the title of Governor, placed in control, who is responsible to the "Southern Pacific Bureau," a government department of the Admiralty in Tokyo.

The Japanese Government are still considering the question of placing Korea under the new Ministry for the Colonies and no decision appears to have yet been reached.

It has now been decided that Korea shall be placed under the jurisdiction of the newly created Ministry for the Colonies. Considerable opposition from Japanese officials and pro-Japanese Koreans has been experienced to the proposal, based mainly on the idea that Korea is not a colony of Japan, but has more or less the status of a Dominion. Opponents of the change fear that placing Korea under a Department intended to control all Japan's overseas possession is calculated to hurt Korea's *amour propre*. Hitherto care has been taken to respect Korea's special position in the Japanese Empire. The Governor-General has been directly responsible to the Prime Minister; now he is to be placed under the Minister for the Colonies. This change, which puts Korea on the same footing as Formosa, South Saghalien, &c., cannot but have the appearance of relegating Korea to the state of a dependency.

In order to meet these arguments, the Governor-General recently made a statement to the effect that Korea is not a colony, and its status, as set forth in the imperial rescript at the time of the annexation in 1910, will be unaffected by the new conditions.

Neither the powers of the Governor-General nor the position of Korea will be changed in the slightest degree.

There seems no reason to doubt the accuracy of this statement of policy, or the fact that the change is merely one of administrative convenience.

### MOROCCO.

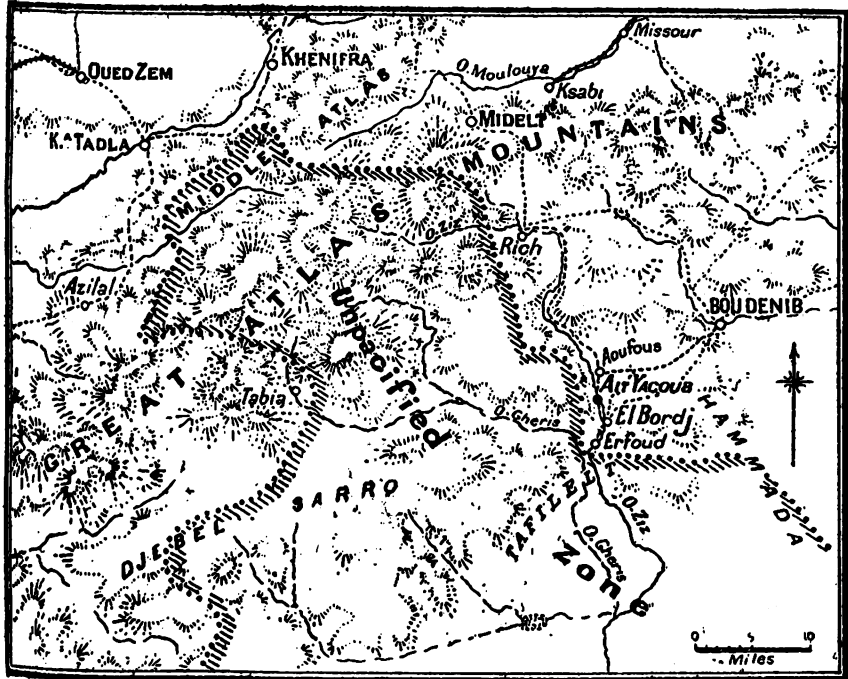
#### FRENCH ZONE.

##### *French reverse in the Middle Atlas.*

On the morning of the 8th June, a French mixed force about 900 strong composed of the 7th Tirailleurs Marocains, a contingent of the Foreign Legion and two sections of artillery, accompanied by a screen of irregulars (the 38th Goum) were attacked in the neighbourhood of Ait Yacoub, near El Bordj in the Tafilelt Oasis of the Middle Atlas by some 2,000 men of the tribes of the Ait Haddidon and the Ait Yahia. A serious fight took place and the French force suffered heavy losses.

The post referred to is in the locality of the Ziz valley, on the road between Bou Denib and Erfoud, and is one of the French outposts lately created in that region with a view to facilitating the gradual pacification of the Tafilelt Oasis, and effecting a further advance south-westwards with the object of clearing up the southern confines of the Atlas range.

It appears that telephonic communication had been cut between Ait Yacoub and El Bordj, and the commandant of the former post



sent out the force mentioned above to repair them. This force fell into a treacherously prepared ambush. The losses suffered by the French were very heavy, and included 7 officers and 15 French non-commissioned officers, 4 native non-commissioned officers, 24 French soldiers and 39 natives killed; and 12 wounded including 2 French officers and 2 French non-commissioned officers. General Freydenberg, commanding the region, and General Vidalon, commander-in-chief the troops of Morocco, proceeded at once to Rich and reinforcements consisting of 2 battalions of the Foreign Legion, a squadron of Spahis and 2 batteries of artillery were at once rushed to this area, while the air service was concentrated in this sector, where its action was very effective. It was not till 20th June that these reinforcements, aided by the air service, succeeded in finally driving off the hostile tribesmen who had invested the post of Ait Yacoub on three sides since 9th June—and relieving its remaining garrison of 360. It is fortunate that the French had not already become involved in complicated operations further south in the Beni Mellal district where there is at present an important concentration of troops. This reverse, unfortunate though it undoubtedly is, is unlikely to have serious repercussions elsewhere, but it brings into relief the dangers that attended French penetration into the Dissident mountainous areas.

## PORTUGAL.

### *Amalgamation of artillery officer personnel.*

The officer personnel of the field and heavy artillery, which has hitherto been separate, has recently been amalgamated.

The following gives the numbers of officers in the newly organized arm :—

Brigadiers	..	..	..	4
Colonels	..	..	..	16
Lieutenant-colonels	..	..	..	20
Majors	..	..	..	45
Captains	..	..	..	120
Subalterns	..	..	..	220
Total				<u>..425</u>

## SPAIN.

*Re-organization of the artillery corps.*

With reference to the disbandment of the Spanish corps of artillery as a result of the revolt at Ciudad Real in February last.

By the terms of a Royal Decree dated 22nd June this corps has been re-organized with effect from 1st July, 1929.

This new organization, which aims at economy and efficiency, entails a reduction in the mobile artillery of the Peninsula army of 16 batteries.

The main points of this re-organization are as follows:—

- (1) *Light artillery.*—The 16 regiments of light artillery have been reduced to 8 regiments. These 8 regiments will be divided into two classes of 4 regiments each—

*Class "A" regiments* will have 5 batteries of 7·5 guns and 5 batteries of 10·5 howitzers, and 1 battery of each in cadre=10 batteries and 2 in cadre.

*Class "B" regiments* will have 3 batteries of 7·5 guns and 3 batteries of 10·5 howitzers, and 3 batteries of each in cadre—6 batteries and 6 in cadre.

*N.B.*—All batteries are to be of 4 guns each. The reduction of light artillery personnel, consequent on this re-organization, amounts to 30 officers and 1,284 other ranks.

- (2) *Coastal artillery.*—An increase in the establishment of the 3 existing coast artillery regiments is forecasted, and the creation of a new (4th) coast artillery regiment (with personnel improvised from the existing establishment in the Balearic Islands) is authorised. The reason given for this increase in coastal artillery is that extra personnel is necessary for the coast defence armament now being installed at Ferrol, &c.

- (3) *Foot, horse and mountain artillery.*—There is no change in the establishment, or organization, of the foot, or mountain artillery, either in the Peninsula, or in Morocco, or the Canary Islands.

*Reinstatement of artillery officers.*

According to the official Spanish Military Gazette of 21st June, the total number of artillery officers who have not applied for, or have

been refused, re-admission into the Spanish corps of artillery is 29 (consisting of 2 lieutenant-colonels, 12 majors, 4 captains and 11 lieutenants). These officers passed to the retired list or situation corresponding to their length of service on 1st July.

The total number of artillery officers whose application for readmission to the corps has been approved and who have been re-instated is 1,092.

The strength of the corps of artillery officers therefore remains approximately unchanged.

*Creation of School of Higher Military Studies.*

It has been decided to turn the "Higher War School" into a "School of Higher Military Studies." The former is to be definitely closed down in February, 1930, and on the following 1st June the "School of Higher Military Studies" will be formed. The staff will be appointed by 1st March, the commandant being a general and the chief instructor a colonel.

The school will be organized as follows:—

There will be two sections.—

(1) Military.

(2) Industrial.

The first section (Military) will prepare officers for the staff.

The second section (Industrial) will be divided into three sub-sections—

(1) *Chemical-Metallurgical Section*, for the instruction of specialists in manufacture of armaments, powders, explosives and gases.

(2) *Military-Architectural Section*, for instruction of personnel in military works and buildings.

(3) *Electro-Technical Section*, for mechanical, electrical and motor instruction.

To qualify for entrance to the School of Higher Military Studies, officers must have completed their two years at the General Academy and subsequent three years at the academy of their own arm; they should also have been two years in command of a unit (company, squadron or battery).

The entrance examination will be competitive.

The period of studies in the first or Military Section will extend over 43 months. There will be no end-of-course examinations, but officers will be qualified for the staff on their general work and will be given a diploma of special qualification, which carries with it a special extra grant of 20 per cent. on their pay up to the rank of general.

The proportion in which the different arms will be represented in this section of the school will be as follows :—

Of 25 vacancies—

12	will be allotted to	infantry officers.
2	„ „	cavalry „
4	„ „	artillery „
2	„ „	engineer „
5	„ „	indiscriminately to any arm or corps at the discretion of the authorities.

In the second or Industrial Section there will be two separate courses for each of the three technical subjects, and officers passing in these will be given the degree of Engineer in the particular class in which they have qualified.

*Artillery Academy at Segovia.*

The Royal Commission appointed on 21st March last to investigate into the individual behaviour of cadets of the Artillery Academy has concluded its enquires, and on the recommendation of this Commission a Royal Order was published in the official Military Gazette of 2nd June authorizing the reopening of the Artillery Academy on 10th June.

The cadets to whom this order refers are required, on applying for reinstatement, to take an oath to the effect that they “ will be loyal to, and obey blindly and without reserve or condition whatsoever, the King and the constituted Government and actually the Government at present in power.” Without this oath no cadet will be readmitted.

Those cadets who are admitted will return in the same grade to which they had attained when the college was closed on the 19th February last.

The term commencing 10th June will conclude in the first ten days of September, when the annual examinations will take place. The following term will commence on 1st October.

SYRIA.

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*Homs.*

Following the visit of M. Bruère, the High Commissioner's Delegate for the State of Syria, Homs regained its freedom last week. Martial law has been repealed, three out of the four Circassian squadrons have been withdrawn and sent back to Damascus, and permission has been granted to resume work in the plantations.

*The Sbaa—Rouallah conflict.*

The Rouallah, conforming to the instructions given to them, gradually move southwards until on 22nd May they were to be found peacefully grazing their herds on the crops of the Djebel Druze. From these they were driven by a squadron of Druze cavalry in an engagement which cost them 18 prisoners, 6 rifles and 276 camels. Meanwhile the Sbaa, unable to get at their enemy on the orthodox Bedouin camel, took to motor cars. On 15th May 50 of them in 7 motor cars attacked a detachment of the Rouallah and carried off 25 camels and 4 horses.

*The Dandaches.*

The Dandaches are a small clan, comprising some 60 families, who live between Baalbek and Homs and who subsist by acting as shepherds for the rich families of the district—in particular for the Metoualis, whose servitors they chiefly are. They are disreputable and law-breaking. On 14th March the head of the clan was killed by a Christian of Ras Baalbek. On 29th April an armed group of representatives of the Dandaches called on the Intelligence Officer in the Bekaa and informed him that, finding the course of justice too slow, they proposed, unless satisfaction was accorded them within 48 hours, to take the law into their own hands and themselves seek retribution. This was the signal for the authorities to set about disarming them. A minor operation was accordingly conducted against them by a combined force of gendarmerie and irregular cavalry—the latter brought up for the purpose from Merjayoune, in southern Syria, 31 miles north of Lake Tibirious. By 14th May the majority of the leaders had surrendered and, with their followers, had given up their arms. A small remainder, who have been joined by a number of outlaws continue to disturb the peace to the north of Baalbek, depriving villagers of their sheep, corn, goats and mukhtars.

*Marseilles-Beyrouth Air Line.*

At 2-50 p.m. on 8th June the postal service of the Air Union *Lignes d'Orient* was inaugurated by the arrival of the flying boat *Brelagne* with the first consignment of mail bags to come by air from Marseilles to Beyrouth. The same aircraft left Beyrouth for Marseilles carrying return mail at 6-30 a.m. on 10th June. The service from now on will be a weekly one working both in winter and summer.

The company is in possession of five aircraft. These will operate the route in three sections as follows :—

- (i) Two C. A. M. S. 53 will be based on Beyrouth and will travel between Beyrouth and Eleusis (20 miles west of Athens), refuelling *en route* at Castellorizio.
- (ii) One Meteor, based on Eleusis, will travel backwards and forwards between Eleusis and Corfu.
- (iii) The remaining section, Corfu to Marseilles, will be worked by two C. A. M. S. 53 based on Marseilles. These will refuel at Naples, with an auxiliary emergency station *en route* at Bastia in the north of Corsica.

To begin with, two and a half days are being allowed from Beyrouth to Marseilles, one day from Beyrouth to Eleusis, another from Eleusis to Naples, and half a day from Naples to Marseilles. Later it is the intention to cut this down to two days and then even less by flying at night.

## UNITED STATES OF AMERICA.

*The James Bill.*

A Conscription Bill was introduced into the House of Representatives on 13th May by Mr. James, Chairman of the House Committee on Military Affairs. This Bill, known as the James Bill, provides that during any national emergency, declared to exist by Congress, the President shall have the power to conscript all male citizens of the nation between the ages of 18 and 45. It was prepared by and introduced at the request of the War Department.

On its introduction the Bill was met by considerable opposition, one of the chief criticisms being that it did not include the conscription of industry—that is to say that, while the man-power of the nation were made to fight at a fixed wage, the industrialists would be drawing high wages and gaining large profits.



## REVIEWS.

### INDIA UNDER WELLESLEY.

By

P. E. ROBERTS.

(Messrs. G. Bell and Sons, Ltd., London, 1929), 15s.

The author of this most interesting book deserves considerable praise. He skilfully weaves a mass of detail into a very readable story and gives a well balanced picture of the subject in hand.

He commences by saying that "the governor-generalship of Lord Wellesley was . . . the greatest of all British administrations in India. It was the most splendid and convincing instance in our history of a government autocratic and imperial in the best sense of the words." We are inclined to agree with this verdict inasmuch as he is fair in pointing out both Wellesley's blemishes and the difficulties of the Court of Directors in dealing with this imperious and masterful statesman.

Wellesley's character seems to have contained most of the attributes necessary for a leader of men. "In everything Wellesley kept the initiative in his own hands and never shirked responsibility. At the same time he never hesitated to delegate wide powers . . . and when he gave confidence he made it almost unlimited . . . He impressed all men with the comprehensiveness of his views, the completeness of his knowledge, his luminous grasp of difficult and complicated situations, and his instinct for driving straight to the heart of a problem . . . He was nowhere greater than in his dealings with his subordinates . . . in the loyalty and devotion which he won from them and in the generosity with which he praised their success or made allowances for their failures." Thus the author—an epitome of one method of leadership.

With all these superb characteristics it is strange to read of his personal vanity and persistent self-glorification. He writes to Lord Grenville eight days after the fall of Seringapatam, "you will gain credit by conferring some high and brilliant order on me immediately . . . ."! But perhaps this faulty trait, together with his unusual views on marriage, are merely the reflex found so often in the make-up of a genius.

With all his great gifts it must be realized that Wellesley had a unique opportunity. To-day, except in extraordinary circumstances (such as the World War), the man is inevitably subject to the machine, far more so than at the beginning of the XIXth century. Thousands of miles from authority at Home and with slow communications thereto, Wellesley had considerable freedom of action, untrammelled by vexatious restrictions or party prejudice. Nevertheless it is remarkable how even in his day he "realized his aspirations and moulded fate to his clear-cut, definite, and conscious aims." He was able to effect continuity of policy and effort towards a single goal. It has been said that a commander who makes an average plan and sticks to it will always succeed vis-à-vis a brilliant leader who constantly changes his good plans for better ones. In Wellesley's case it was the brilliant leader with the brilliant and unchanging plan, the result of which was his amazing success.

With these remarks on the man, we may now consider his environment. With the aid of 3 maps (of which there might be more with advantage) the author takes us step by step through the growth of British dominion in India, depicting the situation and problem at each stage and analysing Wellesley's motives and actions to achieve his object. He shews that Wellesley "thought imperially", i.e., that "engrossing though the task of Indian government were, he never forgot that he was the holder of an outpost of Empire at a time when the Empire was fighting a war . . . with France . . . and he unceasingly combated French influence in the courts and camps of Indian Princes." He demonstrates Wellesley's breadth of view in occupying himself with such widely difficult matters as the founding of the College of Fort William "to educate and train the servants of the Company," and the financing of the Indian trade.

A giant among pigmies, Wellesley was in advance of his time. He laid sure foundations for British supremacy in India and yet was "a prophet without honour in his own country." Warned that he was about to be dismissed, he resigned and returned Home expecting praise but receiving censure. As so often happens, and as will often happen again, his work was not understood—the perspective was not in focus. It is sad to think of the great pro-consul, fully understanding what he had done for the Empire, yet being heaped with opprobrium by the smaller mortals yapping at his heels. Time and a true realization of his efforts have removed the unfair opinion

held at his retirement. We, in India particularly, are able to realise that it has been the good fortune of our race to produce men like Wellesley at the right moment. Without such a man, there might have been no Indian Empire and we may let the result of Wellesley's work speak for itself.

This review, it may be objected, deals mainly with "Wellesley" and not with "India under Wellesley." A study of Mr. Roberts' book will explain at once to any reader that (to paraphrase a famous remark of a contemporary of Wellesley's) "*L'état, c'est lui.*"

### THE WHITE MUTINY.

By

SIR ALEXANDER CARDEW, K.C.S.I.

(Messrs. Constable and Co., Ltd., London, 1929) 12s. 6d. Obtainable from the Oxford University Press, Bombay).

This book describes in detail the almost unique event of a mutiny of several hundred British officers serving in India over a century ago. It analyses in detail the causes that led up to this mutiny, the actual happenings and the results.

In our opinion, the chief interest of this publication lies in the accurate picture it gives of the life and mentality of the Army of those days. There appears to have been little discipline, a matter not perhaps to be wondered at when we read that "of a total strength of about 1,450 officers, only 156 were above the rank of Captain." Military service seems to have been somewhat haphazard, and the inefficiency and weakness of most of the senior officers pronounced. The Army was permeated by a spirit of insubordination, for at that time it had not yet been fortified by long-established traditions. Moreover the military re-organization of 1796 had (in the words of Lord Minto) "brought together in a distant corner of the Empire very young and half-instructed men, removed from the influence of that public opinion which exists in all large and mixed societies." That such insubordination could have happened may be considered amazing until it is realized that the high level of Army administration and discipline to-day is an evolution out of the follies and errors of the past.

Like many other revolts in history, the mutiny failed largely owing to disaffection and desertion within itself. The timid spirits

backed out, whereupon the stronger ones gave up the struggle as hopeless. Undoubtedly, however, the firm and determined handling of the crisis by Sir George Barlow was the main instrument in defeating the mutineers.

The author, with access to all the papers available, makes a very honest study of actions of that Governor of Madras, and we agree with his conclusions. Without admitting that all the steps taken by Sir George, can be defended, we consider that he was unjustly treated by the Court of Directors and did not deserve the hatred his actions generated, or merit the punishment of recall. His would appear to be a case of what has happened so often before and will happen so often again—sacrifice on the altar of political expediency.

The treatment of the culprits after the mutiny was remarkably lenient compared with what would be the case to-day, most of the officers being reinstated. It must, however, be remembered that on the whole the mutiny savoured more of light hearted irresponsibility than of criminal action. After the sharp lesson, the Army was more likely to respond to leniency than severity, taking into account the general conditions of that era.

Considerable trouble has been taken by the author in compiling this work, backed as it is by some 100 pages of appendices. We are of opinion that it will appeal to the antiquarian and the historian; but we doubt whether it will do so, either from the point of view of interest or value, to the average military reader.

#### FOUR MONTHS CAMPING IN THE HIMALAYAS.

By

W. G. N. VAN DER SLEEN.

(*Messrs. Philip Allan and Co., Ltd., London, 1929*) 21s. nett.

Mr. Van Der Sleen is a Dutchman and his book, giving the impressions of a non-Britisher, is unusual and interesting from that aspect as well as from the point of view of information about the little known country of the Himalayas. Moreover, his remarks as a naturalist, geologist and mountaineer, endow this work with a flavour, piquancy and variation of thought not often found in books of travel.

Starting from Simla as a base he describes his journeys into that wild tangle of mountains which many of us see for a goodly

part of the year, a region so close and yet so unknown. His fluent, easy style of writing is most readable and thus, combined with a profuse and beautiful series of illustrations, made us sorry when we came to the last page.

Deep down in the being of most European peoples is the spirit of adventure and the lure of the unknown. The difficulty usually is to compass the two in this modern-day, prosaic and expensive world. It will come as a surprise to many to read that the author was never more than two or three weeks distance from Simla, which, with a quaint touch, he calls "an outpost of civilization." We venture to say that the numbers of Europeans who have penetrated this primitive borderland is infinitesimal, yet here at our door and with little cost lies a virgin area for the explorer—an area whose antiquity goes back to the mists of time, when the world was in its birth-throes—an area in which the customs and mode of life of the inhabitants have changed little during centuries despite the progress of civilization in the greater world at its door. "It is world wars like these," (a fantastic, bloodless and Gilbertian "war" between the States of Kanet and Kumarsain), "that give one the best idea of the curiously mediæval conditions still prevailing in the country.....  
.....The British Raj rules indeed over a remarkable set of dependencies." Again, in a particularly graphic chapter entitled "the dance of the gods," the author brings out the crudeness and primeval nature of worship in these parts and paints a remarkable picture of blind superstition, strongly reminiscent of the "voodoo" of Africa.

Mr. Van Der Sleen is at his best in his descriptions of the magnificent and awe-inspiring scenery. "The scene is forbidding. Forbidding, yet how superbly grand! menacing, yet alluring! can one wonder that for the simple hillmen the farthest peak standing remote, away over there to the left, should be the dwelling place of his god?.....But, how beautiful it all is! the forests and mountain-slopes covered with snow.....and that far-away world of ice and snow, so far away and yet, in the clear winter air, looming so close at hand under the hard, blue sky—a fairy vision and yet a stern reality!....the sun dies down in the west. The mountains flash with rosy light. And high aloft Nanda Devi glows like a lighted taper."

To all of us who feel the "call of the wild," this book will bring back memories of days of perfect enjoyment, memories of complete peace and the minuteness of man in the great spaces, memories of the glories of nature unsurpassed by man-made creations.

Mr. Van Der Sleen's book (so ably translated by M. W. Hoper) should find a place in the library of every traveller or sportsman—especially those in India—and, for our part, we close this review in the words of the immortal Oliver "asking for more."

### THE DEFENCE OF BOWLER BRIDGE.

By

H. E. GRAHAM.

(Messrs. William Clowes and Sons, London, 1929) 3s. 6d.

The author of this most amusing and instructive booklet admits at the outset that *mutatis mutandis* the idea of his study has been borrowed from "The Defence of Duffer's Drift" by Major-General Sir E. D. Swinton (alias "Ole Lukoie") who is doubtless wellknown to all readers of this Journal. The similarity of treatment does not, however, detract from the value of the book, which is one that should prove of great use to all junior officers, particularly those going up for promotion examinations.

Briefly the lessons are taught by a process of "trial and error." Lieutenant Augustus Sydney Smith is made to dream dreams of actual situations in connection with the defence of a bridge against armoured fighting vehicles. At first he commits every mistake possible, but after waking and then dreaming once more, he (having learnt from his last dream) does not commit the same errors again.

In the writing there is no trace of military dogmas, no quotations from F. S. R. The sole appeal is to common sense and this makes the lessons all the easier to learn. Our military text-books are inevitably written in a "generalizing" manner and the difficulty (particularly among those officers who have never seen war) is how to apply the words of wisdom they contain. T. E. W. T.'s and exercises help to teach this application, as also (in our opinion) the method of writing of the book under review. Everyone makes mistakes and learns by experience. How often does one hear the remark "I know what to do next time"! But does one? One would not make the same but one would make other mistakes!

The author very rightly harps on the idea of "putting oneself in the other fellow's shoes and thinking what he would do." The problems of war are psychical or mental as well as physical, and battles or minor fights are won as much by shrewd reasoning of the probable line of action of the enemy as by valour or superior force.

The nature or type of anti-tank gun has been a much discussed matter for many years, and is still not yet definite. The author takes as his selection the '8" gun partially armoured; a type towards which much military opinion leans. It is questionable whether (following the analogy of Vickers guns) one anti-tank gun only would be allotted for the defence of an important bridge, as BOWLER bridge is supposed to be.

We agree with the author that such a defence must be a combination of rifle, automatic and anti-tank gun fire coupled with obstacles and anti-tank mines. Above all concealment, and so surprise, is necessary. In such a case the odds would appear to be on the defender, for, despite all improvements in science, certain obstacles can never be overcome by A. F. V's and the visibility of both sides will differ so vastly at the expense of the attacker. By this, we do not mean to imply that A. F. V's will be of little use. Factors such as the fog of war, the fallibility of human nature, moral, mist, etc. etc., will weigh on one side or the other. Rather do we imply that A. F. V's will be used—and effectively—on that part of the battle-field where their special characteristics will be afforded their fullest scope.

We have read this little treatise with great interest. We like Sergeant BASS, RASPBERRY river and LOBSTERBURG and we hope to make their further acquaintance at some future date.

#### AFGHANISTAN—FROM DARIUS TO AMANULLAH.

By

LIEUT.-GENERAL SIR GEORGE MACMUNN, K.C.B., K.C.S.I., D.S.O.

(Messrs. G. Bell & Sons Ltd., London, 1929) 21 s. nett.

This work contains a brief but concise history of Afghanistan from early days. Sir George commences with a description of the geography and early history of the country, and passes to a discussion of the various races and divisions inhabiting it, emphasising their Semitic origin. The author's tale of the invasions eastward into India is full of interest, and he points out that it was Mahmud

of Ghazni—the idol breaker—who “sowed the seeds of the (Muslim-Hindu) hatred that lasts to this day, and which breaks out at any moment and occasion, let drawing room politicians preach of goodwill and amity never so sweetly.” He describes Russia’s advance southward to the Oxus and outlines the reasons which led to the despatch of British Missions to Persia and to Kabul, and so brought us into direct contact with the Amirs. His outline of the rise and all of the Sadozai Durrani dynasty, and of the stormy fortunes of the Barakzais who succeeded, raises a desire to hear more of this long and interesting story, so full of lessons for those who put their trust in princes. The summary of the three British-Afghan wars which follows, will not satisfy the student of military history, but will give those interested in Afghan affairs just what they want to know. He describes the controversies that have arisen from time to time over our Afghan policy, but points out that, in spite of the tragedies of the first and second Afghan Wars, the results of our policy in 1880 gave us thirty-nine years of a strong and friendly Afghanistan, and brought us through the World War without any untoward incident, “roll the drum ecclesiastic of Islam never so loudly.”

The author’s sketches of the career of Amir Abdur Rahman, that iron ruler of an iron people, and of the Afghan people of to-day, are vivid, and convey a clear impression. He concludes with some interesting observations on Railways, and marks the close of the Durrani dynasty.

The book is well arranged and has some interesting illustrations. It appears at a moment when considerable interest is being taken in Afghan affairs, at a moment when doubt still exists whether or no the work of the last 50 years has been undone by the rebellion which brought about the downfall of Amanullah.

We commend this book to all those who share that interest.







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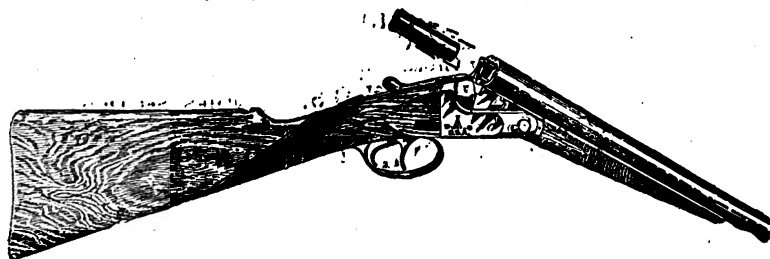
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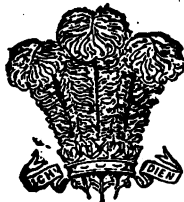
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**II.—Examinations.**

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1	2	3	4	5
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1	October, 1930 ..	..	Battles of Aubers Ridge, Festubert and Loos, 1915.	Egypt and Palestine, from the outbreak of war with Germany to June, 1917.
2	March, 1931 ..	Marlborough's Campaigns, 1702-09.	...	Battles of Aubers Ridge, Festubert and Loos, 1915.

2. Before beginning to read Marlborough's Campaigns, candidates are advised to study carefully Section 9, Training and Manœuvre Regulations, 1923.

3. Army Orders 11 and 292 of 1927 and 49 of 1928 were republished as India Army Orders 241 and 768 of 1927 and 359 of 1928, respectively.

4. Books on military history and languages with dictionaries are available in the Library. The following list of books may be found useful for reference by officers studying for Promotion Examinations or entrance to the Staff College :—

(The list of books presented and purchased as shown in the Journal should also be consulted.)

## MILITARY HISTORY.

### 1.—*The Campaign of the British Army in France and Belgium.*

#### A.—OFFICIAL HISTORY OF THE WAR.

Military Operations, France and Belgium, Vol. I (to October, 1914).

Military Operations, France and Belgium, Vol. II (to 20th November, 1914).

Military Operations, France and Belgium, Vol. IV, 1915.

Sir John French's Despatches.

#### B.—OTHER BOOKS.

40 days in 1914 (General Maurice, new edition).

1914 (Viscount French).

My War Memories (Ludendorff).

General Headquarters, 1914-16, and its Critical Decisions (Falkenhayn).

The March on Paris, 1914 (Von Kluck).

Ypres, 1914. (An official account) (German General Staff).

Oxford Pamphlets, August 1914. The Coming of the War. (Spencer Wilkinson).

Oxford Pamphlets, August 1914, Nos. VII and X.

Times Documentary History of the War, Vol. V, Military, Part I.

Times Documentary History of the War, Vol. VIII, Part III.

Der Grobe Krieg : Die Schlacht bei Mons (German General Staff).

Der Grobe Krieg : Die Schlacht bei Longwy (German General Staff).

Story of the Fourth Army (Montgomery).

**2.—The Palestine Campaign.****A.—OFFICIAL ACCOUNTS.**

A Brief Record of the Advance of the Egyptian Expeditionary Force, 1919.

The Australian Imperial Force in Sinai and Palestine (H. S. Gullett).

The New Zealanders in Sinai and Palestine (Lieut.-Col. C. G. Powels).

The Official History of the Great War. Military Operations in Egypt and Palestine, Vol. I, and Maps (Lieut.-General Sir George MacMunn and Captain Cyril Falls).

The Official History of Australia in the War, 1914-18, Vol. VII Sinai and Palestine (H. S. Gullett).

**B.—OTHER BOOKS.**

Soldiers and Statesmen (Field-Marshal Sir W. Robertson).

The Revolt in the Desert (T. E. Lawrence).

Allenby's Final Triumph (W. T. Massey).

How Jerusalem was Won (W. T. Massey).

Outline of the Egyptian and Palestine Campaigns, 1914-18 (Bowman-Manifold).

The Palestine Campaign (Colonel A. P. Wavell).

The Desert Campaign (W. T. Massey).

L'Attaque du Canal de Suez (Douin).

Army Quarterly—October 1920 (T. E. Lawrence's article).

Army Quarterly—January 1922 (Lieut.-Colonel Wavell and C. T. Atkinson's articles).

Cavalry Journal—October 1921 (Lieut.-Colonel Rex Osborne's article).

Cavalry Journal—July 1923 (Lieut.-Colonel Beston's article).

R. U. S. I. Journal—May 1922 (Colonel-Commandant Weir's article).

U. S. I. Journal—October 1923 (Captain Channer's article).

### 3.—The Dardanelles Campaign.

#### *Description.*

- Naval and Military Despatches .. A clear account of the operations in detail from the G. H. Q. standpoint.
- Reports of the Dardanelles Commission. Fixes responsibility for the inception and conduct of the campaign. An interesting study in the relationship between Politicians and Naval and Military Experts.
- The Dardanelles (Callwell) .. The best account and criticism of the strategic conduct of the campaign.
- Gallipoli Diary (Sir I. Hamilton) .. The campaign from the point of view of the C.-in-C. on the spot.
- Life of Lord Kitchener (Arthur) .. Throws considerable light on Lord Kitchener's direction of the campaign.
- The Dardanelles Campaign (Nevinson).  
Gallipoli (Masfield) } Well written and picturesque accounts by eye-witnesses.
- The World Crisis (Winston Churchill). Explains his part in the inception of the campaign.
- Soldiers and Statesmen (Field-Marshal Sir W. Robertson). From the point of view of the C. I. G. S.
- Five years in Turkey (Liman Von Sanders).
- Official Account: Official History of the War, Naval Operations, Vols. II and III.
- Gallipoli Campaign (Outline of Military Operations). By a Student.
- Experiences of a Dugout (Callwell).
- Despatches from the Dardanelles (Ian Hamilton).
- The Navy in the Dardanelles Campaign (Wemyss).
- Official History of the Great War, Gallipoli, May 1915. Vol. I (O. F. Aspinall Oglander).

**NOTE.**—For a fuller list of authorities, see Appendix I to Callwell's "The Dardanelles."



*4.—The Mesopotamia Campaign.*

The Campaign in Mesopotamia, 1914-18 (Evans).

Official History of the Campaign in Mesopotamia, Vol. IV  
(F. J. Moberly).

Critical Study of the Campaign in Mesopotamia up to April,  
1917.

Soldiers and Statesmen (Field-Marshal Sir W. Robertson).

The World Crisis (Winston Churchill).

Notes and Lectures on the Campaign in Mesopotamia  
(A. Kearsey).

*5.—Waterloo Campaign.*

Waterloo Campaign (J. H. Anderson).

Waterloo (Hilaire Belloc).

Wellington and Waterloo (Arthur Griffiths).

Waterloo, the Downfall of the first Napoleon (George  
Hooper).

Campaign of 1815 (W. H. James).

With Napoleon at Waterloo (E. B. Low).

Campaign of 1815, Ligny : Quatre-Bras : Waterloo (W.  
O'Connor Morris).

Waterloo Campaign (S. C. Pratt).

Wellington and Waterloo (G. W. Redway).

Wellington Campaigns. Peninsula-Waterloo, 1808-15, also  
Moore's.

Campaign of Corunna (C. W. Robinson).

*6.—Marlborough's Campaigns.*

History of the British Army, Vol. I (Hon. J. W. Fortescue).

Life of John, Duke of Marlborough, Vols. I and II (Archibald  
Alison).

The Wars of Marlborough, 1702-09 (Frank Taylor).

John Churchill, Duke of Marlborough, Vols. I and II (Viscount  
Wolseley).

Marlborough and the Rise of the British Army (C. T. Atkinson).

A Short Life of Marlborough (H. J. & E. A. Edwards).

The Battle of Blenheim (Hilaire Belloc).

7.—*The American Civil War.*

- Stonewall Jackson and the American Civil War (G. F. R. Henderson).  
History of the Civil War in the United States, 1861-65 (W. B. Wood and J. E. Edmonds).  
History of the Campaign of Gen. T. J. (Stonewall) Jackson in the Shenandoah Valley of Virginia (William Allen).  
American Civil War (J. H. Anderson).  
The 1st American Civil War, 1775-78 (Henry Belcher).  
The American Civil War, 1861-64 (John Formby).  
History of the American Civil War (J. W. Draper).  
Fredericksburg and Chancellorsville (J. E. Gough).  
Battles and Leaders of the Civil War (Johnson and Buel).  
War of Secession, 1861-62 (G. W. Redway).

8.—*The East Prussian Campaign.*

Tannenberg—First 30 days in East Prussia (Edmund Ironside).

9.—*The Russo-Japanese War, 1904, up to and including the Battle of Liao-Yang.*

- A Staff Officer's Scrapbook (Ian Hamilton).  
German Official Account.  
Lectures on the Strategy of the Russo-Japanese War (Bird).  
Question on the Russo-Japanese War (Brunker).  
Official Account: The Russo-Japanese War (Naval and Military),  
3 Vols., published by Committee of Imperial Defence.  
Outline of the Russo-Japanese War (Ross).  
A Study of the Russo-Japanese War (Chasseur).  
My Experiences at Nan Shan and Port Arthur (Tretyakow).  
Outline History of the Russo-Japanese War, 1904, up to the Battle of Liao-Yang, with Questions and Answers (P. W.).  
A Short Account of the Russo-Japanese War ("Footslogger").  
An Account of the Battle of Liao-Yang (with questions and 10 maps for examination purposes) (Bird).

10.—*Organization of the Army since 1868.*

## A.—ORGANIZATION OF THE ARMY SINCE 1868.

History of British Army, by Fortescue, Vols. I to XL.

Outline of the Development of British Army, by Major-General Sir W. H. Anderson.

Our Fighting Services, by Sir Evelyn Wood.

## B.—FORCES OF THE EMPIRE.

The Annual Army Estimates of Effective and Non-Effective Services (H. M. Stationery Office).

\* Notes on the Land Forces of the British Dominions, Colonies, Protectorates and Mandated Territories, 1928.

The Statesman's Year Book 1929.

Army List.

Articles in Newspapers and Magazines, *viz.*, R. U. S. I. Journal, Army Quarterly, Journal of the U. S. I. of India, etc.

† Handbooks for the Indian Army—Sikhs, 1928.

11.—*Development and Constitution of the British Empire.*

## A.—THE BRITISH EMPIRE.

Encyclopædia Britannica—(contains much concentrated information).

The Statesman's Year Book 1929.

Whitaker's Almanack.

The Colonial Office List.

The Government of the British Empire (Jenks, 1923).

The Foundation and Growth of the British Empire (J. A. Williamson, 1918).

The Beginnings of English Overseas Enterprise (Sir O. P. Lucas, 1917).

The British Empire Series. (12 Volumes).

The Government of England (L. A. Lowell, 1912).

The Expansion of the British Empire (W. H. Woodward, 1921 and 1924 editions).

Overseas Britain (E. F. Knight, 1907).

The Origin and Growth of the English Colonies and of Their System of Government (H. E. Egerton, 1903).

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\* Particularly recommended by the C. I. G. S. for all officers to read.

† Not to be removed from the library.

A Short History of Politics (Jenks, 1900).  
The English Constitution (Bagehot, 1909).  
The Expansion of England (Sir J. Seely, 1883).  
Introduction of the Study of the Law of the Constitution (A. V. Dicey, 1908).  
England in the Seven Years' War (Sir J. Corbett, 1907).  
Selected Speeches and Documents on British Colonial Policy, 2 Vols. (A. B. Keith, 1918).  
Forty-one Years in India (Lord Roberts).  
History of the British Army (Sir John Fortescue).  
General Survey of the History of India (Sir Verney Lovett).  
Citizenship in India (Captain P. S. Cannon).  
India in 1926-27 (J. Coatman).  
India in 1927-28 (J. Coatman).  
India (Nations of To-day Series). (Sir Verney Lovett).

**B.—BOOKS ON SPECIAL PORTIONS OF THE EMPIRE OR WORLD.**

The Rise and Expansion of British Dominions in India (Sir A. O. Lyall, 1894).  
A Brief History of the Indian Peoples (Sir W. H. Hunter, 1907).  
The Nearer East (Hogarth, 1902).  
Modern Egypt (Cromer, 1908).  
Egypt and the Army (Elgood, 1924).  
The History of Canada (W. L. Grant).  
Nova Scotia (B. Wilson, 1911).  
Report on British North America (Sir C. P. Lucas).  
The Union of South Africa (R. H. Brand, 1909).  
Short History of Australia (E. Scot).  
History of the Australasian Colonies (Jenks, 1912).  
The English in the West Indies (J. A. Froude, 1888).  
The Lost Possessions of England (W. F. Lord, 1896).  
International Relations of the Chinese Empire (H. B. Mosse).  
(Kelly and Walsh, Shanghai).  
What's Wrong with China ? (Gilbert).  
Why China Sees Red (Putman-Weale).  
Napoleon's Campaigns in Italy (Lient.-Col. R. G. Burton).

12.—*Military Geography.*

Naval and Military Geography of the British Empire (Dr. Vaughan Cornish, 1916).

Imperial Military Geography (Capt. D. H. Cole, 1928).

Introduction of Military Geography (Col. E. S. May).

Imperial Defence (Col. E. S. May).

Main Feature of the Japanese and other Pacific Problems.

(Reprinted from *Morning Post*. Sifton Præd).

Britain and the British Seas (H. J. Makinder, 1907).

Military Geography (Macguire).

Imperial Strategy (Repington).

War and the Empire (H. Foster).

Historical Geography of British Colonies (Dominions), 7 Vols.

(Sir C. P. Lucas, 1906-17)—

Vol. 1, Mediterranean.

Vol. 2, West Indies.

Vol. 3, West Africa.

Vol. 4, South Africa.

Vol. 5, Canada.

Vol. 6, Australia.

Vol. 7, India.

The Influence of Sea Power on History (A. T. Mahan, 1890).

Historical Geography of the British Empire (Hereford George).

The Mastery of the Pacific (A. R. Colquhoun, 1902).

Frontiers (C. B. Fawcett, 1918).

13.—*Foreign Armies.*

## OFFICIAL.

\* Handbook of the United States Army, 1924.

\* Handbook of the Army of the Netherlands, 1922.

\* Handbook of the French Army, 1925.

\* Handbook of the Belgian Army, 1926.

\* Handbook of the Polish Army, 1927.

\* Handbook of the Army of the Kingdom of Serbs, Croats and Slovenes (Yugo-Slavia) 1927.

\* Handbook of the Czechoslovak Army, 1927.

\* Handbook of the Swiss Army, 1924.

\* Handbook of the German Army, 1928.

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\*NOT to be removed from the Library.

14.—*Tactical.*

Common mistakes in the solution of tactical problems and how to avoid them (Lieut.-Colonel A. B. Beauman, 1926).

Historical illustrations to Field Service Regulations, Vol. II (Major E. G. Eady, 1926).

Elementary Tactics or the Art of War, British School (Major R. P. Pakenham-Walsh, 1927).

III.—Payment for Articles in the Journal.

Articles accepted for publication in the Journal are paid for, and a sum of approximately Rs. 750 is awarded for articles and reviews published in each Quarterly Journal.

IV.—Contributions to the Journal.

Articles submitted for publication must be typed in *duplicate*. With reference to Regulations for the Army in India, paragraph 204 and King's Regulations, paragraph 522, action to obtain the sanction of His Excellency the Commander-in-Chief to the publication of any article in the Journal of the United Service Institution of India will be taken by the Committee.

*Instructions for the preparation of drawings and plans for reproduction by lithography.*

These should be in *jet black*. No washes or ribands of colour should on any account be used.

If it is absolutely necessary to use colour (and these are only permissible in line work or names) the following will reproduce photographically, *i. e.* :—

Dark red, dark orange, dark green. No other colour should on any account be used.

V.—Library Rules.

1. The Library is only open to members and honorary members of the United Service Institution of India. Members are requested to look upon books as not transferable to their friends.

2. No book shall be taken from the Library without making the necessary entry in the register. Members residing permanently or temporarily in Simla are requested to enter their addresses.

3. The United Service Institution of India is open all the year round—including Sundays—from 9 A.M. until sunset. Books may be taken out at any time provided Rule 2 is complied with.

4. A member shall not be allowed, at one time, more than three books or sets of books.

5. Papers, magazines, "works of reference" or books marked "Not to be Taken Away," or noted as "Confidential" may not be removed.

6. No particular limit is set as to the number of days for which a member in Simla may keep a book, the Council being desirous of making the library as useful as possible to members; but if after the expiration of a fortnight from date of issue it is required by any other member it will be re-called.

7. Applications for books from members at out-stations are dealt with as early as possible, and books are despatched per Registered P. P. They must be returned carefully packed per Registered Parcel Post within one month of date of issue.

8. If a book is not returned at the end of one month, it must be paid for without the option of return, if so required by the Executive Committee.

9. Lost and defaced books shall be replaced at the cost of the member to whom they were issued. In the case of lost books which are out of print the value shall be fixed by the Executive Committee, and the amount, when received, spent in the purchase of a new book.

10. The issue of a book under these rules to any member implies the latter's compliance with the rules, and the willingness to have them enforced, if necessary, against him.

11. A list of all books presented and purchased, and also a list of books useful to members studying for the Staff College and Promotion Examinations, will be found under Secretary's Notes in the quarterly issue of the U. S. I. Journal.

12. Members are invited to contribute presents of books, maps and photographs of naval and military interest. These may be addressed to the Secretary, U. S. I. of India, Simla. They will be duly acknowledged.

#### **VI.—Library Catalogue.**

The catalogue is completed to 31st March 1924. Price Rs. 3-8-0 or postage paid Rs. 3-14-0. An addendum completed up to 30th September 1927 is available. Price As. 8 *plus* postage As. 4:

## VII.—Army List Pages.

The U. S. I. is prepared to supply members and units with manuscript or type-written copies of Indian Army List pages, at the rate of Rs. 2 per manuscript or type-written page.

## VIII.—BOOKS PRESENTED.

<i>Title.</i>	<i>Published.</i>	<i>Author.</i>
1. The Generalship of Ulysses S. Grant. (Presented by Messrs. Constable & Co., London).	1929.	Col. J. F. C. Fuller.
2. A History of the Provost Marshal and the Provost Services. (Presented by Messrs. Milne and Hutchinson, Aberdeen).	1929.	Capt. H. Bullock.
3. Marlborough and His Campaigns 1702-09. (Presented by Messrs. Gale and Polden, Ltd., Aldershot).	1929.	Lt.-Col. A. Kearsey.
4. A Short History of the R. A. Medical Corps. (Presented by Messrs. Gale and Polden Ltd., Aldershot).	1929.	Col. F. Smith.
5. The Royal Air Force Quarterly Journal, Vol. I, 1930. (Presented Messrs, by Gale and Polden, Ltd., Aldershot).	..	--
6. All the World's Aircraft (Presented by Messrs. Sampson Low, Marston & Co., Ltd.).	.. 1929.	C. G. Grey.
7. The Army List of Hodson's Horse 1857—1928. (Presented by the Officers, Hodson's Horse).	1929.	--
8. Imperial Economy (Presented by Messrs. Sifton Praed & Co., Ltd., London).	.. 1930.	Major R. J. Wilkinson.
9. The Art of Generalship—Four Exponents and One Example. (Presented by Messrs. Gale and Polden, Ltd., Aldershot).	..	Lt.-Col. C. O. Head.



## BOOKS PURCHASED.

<i>Title.</i>	<i>Published.</i>	<i>Author.</i>
1. The Dilemma in India	.. 1929.	Sir Reginald Craddock.
2. Three Persons	.. 1929.	Sir Andrew MacPhail.
3. The Way of a Man with a Horse.	1929.	Lieut.-Col. Geoffrey Brooke.
4. The Army	-- 1929.	Sir George MacMunn.
5. July 1914	.. 1929.	Emil Ludwig.

## BOOKS ON ORDER.

1. A Soldier's War Diary	--	Anonymous.
2. Air Defence	--	Ashmore.
3. The History of the 4th Bn. 19th Hyderabad Regiment	--	--
4. Open House in Flanders	--	Baroness Ernest de la Grange.
5. Sovereignty of the British Dominions.	--	As B. Keith.
6. A Subaltern's War	--	Edmonds.

## IX.—Schemes.

The schemes in the Institution have been considerably increased and in order to simplify their issue they have been classified and numbered as follows.

They can all be obtained by V. P. P., *plus* postage, on application to the Secretary.

(A) *Administrative Exercise, with diagram. (Reprinted May, 1928).*

To illustrate the supply system of a Division (suitable for Staff College or Promotion) .. Rs. 2

(B) *Mountain Warfare (Reprinted May, 1928).*

(i) A scheme complete with map and solution .. ,, 2-8

(ii) Three Lectures on Mountain Warfare .. ,, 1-8

(C) *Staff College Series (Reprinted May, 1928)*. Complete with maps and solutions :—

(i) Approach March.

Reconnaissance of night attack.

Orders for night attack .. .. Rs. 2-8

(ii) Outposts.

Defence.

Action of a Force Retiring .. .. „ 2-8

(iii) Move by M. T.

Occupation of a defensive position.

Counter-attack .. .. „ 2-8

(D) *Promotion Series (Reprinted May, 1928)*. Complete with maps and solutions.

*Lieutenant to Captain—*

(i) Mountain Warfare .. .. Rs. 2-8

(ii) Defence.

Attack orders .. .. „ 2-8

*Captain to Major—*

(i) Outposts.

Defensive position.

Withdrawal .. .. „ 2-8

(ii) Tactical Exercise without troops.

Reconnaissance.

Attack orders .. .. „ 2-8

(E) Course of five lectures given at the London School of Economics, 1925, on “Transportation in War.” As. 12.

(F) *Staff College Course Schemes (1928)* :—

(i) A set of three schemes, as given at the Army

Headquarters Staff College Course, 1928, comp-

lete with maps and solutions, complete set .. Rs. 5 .

- (G) The following tactical schemes, and a limited number of other papers, as given at the Army Headquarters Staff College Course, 1929, are available :—

## TACTICAL SCHEMES.

- (i) 3 Schemes complete with maps and solutions .. Re. 3 each.

## OTHER PAPERS.

Precis of Lectures on —

(ii)	Night Operations .. ..	Rs. 1 ..
(iii)	The Palestine Campaign from 9th November 1927 .. ..	.. 1 As. 8 ..
(iv)	The Dardanelles Campaign .. ..	.. 1 .. 8 ..
(v)	Action of the B. E. F. in 1914 (up to and including the Aisne) .. ..	.. 1 ..
(vi)	American Civil War (1st Lecture) .. ..	As. 12 ..
	American Civil War (2nd Lecture) .. ..	.. 12 ..
(vii)	Napoleon's Campaign in Italy, 1796 .. ..	.. 12 ..
(viii)	Waterloo Campaign .. ..	.. 12 ..
(ix)	The Peninsular War up to and including Salamanca .. ..	.. 12 ..
(x)	East Prussian Campaign in 1914 .. ..	.. 12 ..
(xi)	The Russo-Japanese War up to the Battle of Liao-Yang .. ..	.. 8 ..
(xii)	Ordnance Services .. ..	.. 8 ..
(xiii)	The Organization of the British Army .. ..	.. 8 ..
(xiv)	Artillery Organization .. ..	.. 8 ..
(xv)	Transportation (War) .. ..	.. 8 ..
(xvi)	Training .. ..	.. 8 ..

(xvii)	The " Q " Administrative Services in Peace	As. 8	each
(xviii)	Anti-aircraft Defence in the Field ..	8	„
(xix)	The rôle of an Air Force Co-operation with a Military Force .. .. .	8	„
(xx)	The Tactical Employment of Divisional Artillery in Mobile Warfare ..	8	„
(xxi)	Intercommunication within a Division ..	8	„
(xxii)	Armoured Cars .. .. .	8	„
(xxiii)	Tanks .. .. .	8	„
(xxiv)	The Employment of Cavalry with a Brigade of all Arms .. .. .	8	„
(xxv)	The Dominion Forces .. .. .	8	„
(xxvi)	Indian Territorial Force .. .. .	8	„
(xxvii)	Military Law (II) .. .. .	8	„
(xxviii)	Military Law (III) .. .. .	8	„
(xxix)	Hints on Working for the Examination and on tackling the Tactical Papers ..	8	„
(xxx)	Organization and Administration (Peace) ..	8	„
(xxxi)	Organization and Administration (War) ..	8	„

Copies of Military Law paper (questions and answers), as given at the Army Headquarters Staff College Course, 1926, are also available at As. 4 per copy.

Efforts are being made to compete with demands for tactical schemes from officers working for the Staff College and Promotion Examinations by introducing as many new schemes as possible.

It is obviously impossible for the Secretary to undertake the correction of individual solutions, but all the recent schemes include a suggested solution in the form in which it is considered that the paper should have been answered, with reasons for the solution given.

Officers are recommended to work all their schemes against time and to get into the habit of the methodical allotment of time to the various questions asked.

**X.—GOLD MEDAL PRIZE ESSAY COMPETITION, 1930.**

The Council has chosen the following subject for the Gold Medal Prize Essay Competition for 1930:—

“With the development of our frontier policy the tribesmen are gradually finding it more and more difficult to pursue their normal avocation of raiding; economic conditions in tribal territory, however, remain much as they were.”

“Discuss how best we can assist the economic development of tribal territory and provide a field of employment for the rising generation of tribesmen.”

The following are the conditions of the competition:—

(1) The competition is open to all gazetted officers of the Civil Administration, the Royal Navy, Army and Royal Air Force or Auxiliary Forces, who are members of the U.S.I., of India.

(2) Essays must be printed or type-written and submitted in triplicate.

(3) When reference is made to any work, the title of such work is to be quoted.

(4) Essays are to be strictly anonymous. Each must have a motto and, enclosed with the essay, there should be sent a sealed envelope with the motto written on the outside and the name of the competitor inside.

(5) Essays will not be accepted unless received by the Secretary on or before the 30th June 1930.

(6) Essays will be submitted for adjudication to three judges, chosen by the Council. The judges may recommend a money award, not exceeding Rs. 150, either in addition to or in substitution of the medal. The decision of the three judges will be submitted to the Council, who will decide whether the medal is to be awarded and whether the essay is to be published.

(7) The name of the successful candidate will be announced at a Council Meeting to be held in September or October 1930.

(8) All essays submitted are to become the property of the United Service Institution of India absolutely, and authors will not be at liberty to make any use whatsoever of their essays without the sanction of the Council.

(9) Essays should not exceed 15 pages of the size and style of the Journal, exclusive of any appendices, tables or maps.

By order of the Council,

G. B. HENDERSON, MAJOR,

*Secretary, United Service Institution of India.*

SIMLA :

1st April 1930.

## Prize Essay Gold Medallists.

*(With Rank of Officers at the date of the Essay).*

- 1872..ROBERTS, Lieut.-Col. F. S., V.C., C.B., R.A.  
 1873..COLQUHOUN, Capt. J. S., R.A.  
 1874..COLQUHOUN, Capt. J. S., R.A.  
 1879..ST. JOHN, Maj., O.B.C., R.E.  
 1880..BARROW, Lieut. E. G., 7th Bengal Infantry.  
 1882..MASON, Lieut. A. H., R.E.  
 1883..COLLEN, Maj. E. H. H., s.c.  
 1884..BARROW, Capt. E. G., 7th Bengal Infantry.  
 1887..YATE, Lieut. A. C., 27th Baluch Infantry.  
 1888..MAUDE, Capt. F. N., R.E.  
     YOUNG, Maj. G. F., 24th Punjab Infantry (specially awarded a silver medal).  
 1889..DUFF, Capt. B., 9th Bengal Infantry.  
 1890..MAGUIRE, Capt. C. M., 2nd Cavy. Hyderabad Contingent.  
 1891..CARDEW, Lieut. F. G., 10th Bengal Lancers.  
 1893..BULLOCK, Maj. G. M., Devonshire Regiment.  
 1894..CARTER, Capt. F. C., Northumberland Fusiliers.  
 1895..NEVILLE, Lieut.-Col. J. P. C., 14th Bengal Lancers.  
 1896..BINGLEY, Capt. A. H., 7th Bengal Infantry.  
 1897..NAPIER, Capt. G. S. F., Oxfordshire Light Infantry.  
 1898..MULLALLY, Maj. H., R.E.  
     CLAY, Capt. C. H., 43rd Gurkha Rifles (specially awarded a silver medal).  
 1899..NEVILLE, Col. J. P. C., s.c.  
 1900..THUILLIER, Capt. H. F., R.E.  
     LUBBOCK, Capt. G., R.E. (specially awarded a silver medal).  
 1901..RANKEN, Lieut.-Col. G. P. P., 46th Punjab Infantry.  
 1902..TURNER, Capt. H. H. F., 2nd Bengal Lancers.  
 1903..HAMILTON, Maj. W. G., D.S.O., Norfolk Regiment.  
     BOND, Capt. R. F. G., R.E. (specially awarded a silver medal).  
 1904..MACMUNN, Maj. G. F., D.S.O., R.F.A.  
 1905..COCKERILL, Maj. G. K., Royal Warwickshire Regiment.  
 1907..WOOD, Maj. E. G. M., 99th Deccan Infantry.  
 1908..JEUDWINE, Maj. H. S., R.A.  
 1909..MOLYNEUX, Maj. E. M. J., D.S.O., 12th Cavalry.  
     ELSMIE, Maj. A. M. S., 56th Rifles, F. F. (specially awarded a silver medal).  
 1911..MR. D. PETRIE, M.A., Punjab Police.  
 1912..CARTER, Maj. B. C., The King's Regiment.  
 1913..THOMSON, Maj. A. G., 58th Vaughan's Rifles (F. F.).  
 1914..BAINBRIDGE, Lieut.-Col. W. F., D.S.O., 51st Sikhs (F. F.).  
     NORMAN, Maj. C. L., M.V.O., Q. V. O. Corps of Guides (specially awarded a silver medal).  
 1916..CRUM, Maj. W. E., V.D., Calcutta Light Horse.  
 1917..BLAKER, Maj. W. F., R.F.A.  
 1918..GOMPERTZ, Capt. A. V., M.C., R.E.  
 1919..GOMPERTZ, Capt. M. L. A., 108th Infantry.  
 1920..KEEN, Lt.-Col. F. S., D.S.O., 2/15th Sikhs.  
 1922..MARTIN, Maj. H. G., D.S.O., O.B.E., R.F.A.  
 1923..KEEN, Col. F. S., D.S.O., I.A.  
 1926..DENNY, Maj. L. E., M.C., 4/12th Frontier Force Regiment.  
 1927..HOGG, Maj. D. MC. A., M.C., R.E.  
 1928..FRANKS, Maj. K. F., D.S.O., 5th Royal Mahrattas.  
 1929..DENNY, Maj. L. E., M.C., 4/12th Frontier Force Regiment.

## MACGREGOR MEMORIAL MEDALS.

1. The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major-General Sir Charles MacGregor. The medals are awarded for the best military reconnaissances or journeys of exploration of the year.

2. The following awards are made annually in the month of June :—

(a) For officers—British or Indian—silver medal.

(b) For soldiers—British or Indian—silver medal, with Rs. 100-gratuity.

3. For especially valuable work a gold medal may be awarded in place of one of the silver medals, or in addition to the silver medals, whenever the administrators of the fund deem it desirable. Also the Council may award a special additional silver medal, without gratuity, to a soldier, for especially good work.

4. The award of medals is made by His Excellency the Commander-in-Chief, as Vice-Patron, and the Council of the United Service Institution who were appointed administrators of the Fund by the MacGregor Memorial Committee.

5. Only officers and soldiers belonging to the Army in India (including those in civil employ) are eligible for the award of the medal.\*

6. The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal.†

### *Note.*

(i) Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal; but in the event of two journeys being of equal value, the man who has run the greater risk will be considered to have the greater claim to the reward.

(ii) When the work of the year has either not been of sufficient value, or has been received too late for consideration before the Council Meeting, the medal may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief to deserve it.

### MacGregor Memorial Medallists.

*(With rank of officers and soldiers at the date of the Award.)*

1889..BELL, Col. M. S., V.C., R.E. (specially awarded a gold medal).

1890..YOUNGHUSBAND, Capt. F. E., King's Dragoon Guards.

\* N. B.—The terms "officer" and "soldier" include those serving in the British and Indian armies and their reserves, also those serving in Auxiliary Forces, such as the Indian Auxiliary and Territorial Forces and Corps under Local Governments, Frontier Militia, Levies and Military Police, also all ranks serving in the Indian States Forces.

† Replacements of the ribbon may be obtained on payment from the Secretary. U. S. I., Simla.

## MacGregor Memorial Medallists—(contd.).

- 1891..SAWYER, Maj. H. A., 45th Sikhs.  
RAMZAN KHAN, Havildar, 3rd Sikhs.
- 1892..VAUGHAN, Capt. H. B., 7th Bengal Infantry.  
JAGGAT SINGH, Havildar, 19th Punjab Infantry.
- 1893..BOWER, Capt. H., 17th Bengal Cavalry (especially awarded a gold medal).  
FAZALDAD KHAN, Dafedar, 17th Bengal Cavalry.
- 1894..O'SULLIVAN, Maj. G. H. W., R.E.  
MULL SINGH, Sowar, 6th Bengal Cavalry.
- 1895..DAVIES, Capt. H. R., Oxfordshire Light Infantry.  
GANGA DYAL SINGH, Havildar, 2nd Rajputs.
- 1896..COCKERILL, Lieut. G. K., 28th Punjab Infantry.  
GHULAM NABI, Sepoy, Q. O. Corps of Guides.
- 1897..SWAYNE, Capt. E. J. F., 10th Rajput Infantry.  
SHAHZAD MIR, Dafedar, 11th Bengal Lancers.
- 1898..WALKER, Capt. H. B., Duke of Cornwall's Light Infantry.  
ADAM KHAN, Havildar, Q. O. Corps of Guides.
- 1899..DOUGLAS, Capt. J. A., 2nd Bengal Lancers.  
MIHR DIN, Naik, Bengal Sappers and Miners.
- 1900..WINGATE, Capt. A. W. S., 14th Bengal Lancers.  
GURDIT SINGH, Havildar, 45th Sikhs.
- 1901..BURTON, Maj. E. B., 17th Bengal Lancers.  
SUNDAR SINGH, Colour Havildar, 31st Burmah Infantry.
- 1902..RAY, Capt. M. R. E., 7th Rajput Infantry.  
TILBIE BHANDARI, Havildar, 9th Gurkha Rifles.
- 1903..MANIFOLD, Lieut.-Col. C. C., I.M.S.  
GHULAM HUSSAIN, Lance-Dafedar, Q. O. Corps of Guides.
- 1904..FRASER, Capt. L. D., R.G.A.  
MOGHAL BAZ, Dafedar, Q. O. Corps of Guides.
- 1905..RENNICK, Maj. F., 40th Pathans (specially awarded a gold medal).  
MADHO RAM, Havildar, 8th Gurkha Rifles.
- 1906..SHAHZADA AHMAD MIR, Risaldar, 36th Jacob's Horse.  
GHAFUR SHAH, Lance-Naik, Q. O. Corps of Guides Infantry.
- 1907..NANGLE, Capt. M. C., 92nd Punjabis.  
SHEIKH USMAN, Havildar, 103rd Mahratta Light Infantry.
- 1908..GIBBON, Capt. C. M., Royal Irish Fusiliers.  
MALANG, Havildar, 56th Punjab Rifles.
- 1909..MUHAMMAD RAZA, Havildar, 106th Pioneers.



## MacGregor Memorial Medallists—(concl'd.).

- 1910..SYKES, Maj. M., C.M.G., late 2nd Dragoon Guards (specially awarded a gold medal).  
TURNER, Capt. F. G., R.E.  
KHAN BAHADUR SHER JUNG, Survey of India.
- 1911..LEACHMAN, Capt. G. E., The Royal Sussex Regiment.  
GURMUKH SINGH, Jemadar, 93rd Burmah Infantry.
- 1912..PRITCHARD, Capt. P. P. A., 83rd Wallahjabad Light Infantry (specially awarded a gold medal).  
LIEUT. A. T., C.M.G., 32nd Sikh Pioneers.  
MOHIBULLA, Lance-Dafedar, Q. V. O. Corps of Guides.
- 1913..ABBAY, Capt. B. N., 27th Light Cavalry.  
SIRDAR KHAN, Sowar, 39th (K. G. O.) Central India Horse.  
WARATONG, Havildar, Burmah Military Police (specially awarded a silver medal).
- 1914..BAILEY, Capt. F. M., I.A. (Political Department).  
MORSHEAD, Capt. H. T., R.E.  
HAIDAR ALI, Naik, 106th Hazara Pioneers.
- 1915..WATERFIELD, Capt. F. C., 45th Rattray's Sikhs.  
ALI JUMA, Havildar, 106th Hazara Pioneers.
- 1916..ABDUR RAHMAN, Naik, 21st Punjabis.  
ZARGHUN SHAH, Havildar, 58th Rifles (F. F.) (specially awarded a silver medal).
- 1917..MIAN AFRAZ GUL, Sepoy, Khyber Rifles.
- 1918..NOEL, Capt. E. W. C. (Political Department).
- 1919..KEELING, Lieut.-Col. E. H., M.C., R.E.  
ALLA SA, Jemadar, N. E. Frontier Corps.
- 1920..BLACKER, Capt. L. V. S., Q. V. O. Corps of Guides.  
AWAL NUR, C. Q. M. Havildar, 2nd Bn., Q. V. O. Corps of Guides. (Special gratuity of Rs. 200.)
- 1921..HOLT, Maj. A. L., Royal Engineers.  
SHER ALI, Sepoy No. 4952, 106th Hazara Pioneers.
- 1922..ABDUL SAMAD SHAH, Capt., O.B.E., 31st D. C. O. Lancers.  
NUR MUHAMMAD, Lance-Naik, 1st Guides Infantry, F. F.
- 1923..BRUCE, Capt. J. G., 2/6th Gurkha Rifles.  
SOHBAT, Head Constable, N.-W. F. Police.  
HARI SINGH THAPA, Survey Department (specially awarded a silver medal).
- 1924..HAVILDAR RAHMAT SHAH, N.-W. F. Corps.  
NAIK GHULAB HUSSAIN, N.-W. F. Corps.
- 1925..SPEAR, Capt. C. R., 5/13th Frontier Force Rifles.  
JABBAR KHAN, Naik, 5/13th Frontier Force Rifles.
- 1926..HARVEY-KELLY, Maj. C. H. G. H., D.S.O., 4/10th Baluch Regiment.
- 1927..LAKE, Maj. M. C., 4/4th Bombay Grenadiers.
- 1928..BOWERMAN, Capt. J. F., 4/10th D. C. O. Baluch Regiment.  
MUHAMMED KHAN, Havildar, Zhob Levy Corps.
- 1929..ABDUL HANAN, Naik, N.-W. F. Corps.  
(With gratuity of Rs. 100.)  
GHULAM ALI, Daffadar, Guides Cavalry (specially awarded a silver medal).

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### COLLECTIVE TRAINING IN A BATTALION.

By

“AN INFANTRY SOLDIER.”

To those who are accustomed to training men and who have their own ideas on the subject, this article will be of little or no interest, but to others who either have not had sufficient practice or whose ideas on the subject are not definite I venture to make a few suggestions.

The importance of collective training cannot be overestimated and to achieve really good results is by no means an easy matter.

There are two golden rules in training men—firstly, keep them interested and, secondly, inspire them with keenness to learn.

To achieve the first it is absolutely essential to hold discussions on the work carried out and the second can easily be ensured if the officers in command, particularly the senior ones, set a good example. A keen senior officer can inspire his whole Command almost before they have had time to get to know him, and a slack one will do just the opposite. The smaller the unit the greater the effect of the personal example. A Company or Platoon with a bad Commander will lose its efficiency in no time.

These remarks may appear to be platitudes but their importance should not be overlooked. If officers were judged more by the results they achieve when in command of men and if all officers were made to prove their efficiency in this respect, the result would undoubtedly be greater efficiency and better leadership in the Army.

Before making out programmes for the training season it is obviously necessary to decide how many days are to be allotted to each unit and where the training is to be carried out. In the selection of the ground there may be no choice and in some stations training may even have to be done from barracks, but if training can be done in camp, and no really useful work can be done elsewhere, try to vary

the locality each year. Men soon get tired of the same old ground and a change of scene may make all the difference. Also, whenever it can possibly be arranged, let units go out into camp by themselves, far from the maddening crowd. Each Company should be sent out by itself under its Company Commander and each Battalion to its own Battalian Camp.

Attempts are often made to train companies from a Battalion Camp and battalions from a Brigade Camp, but this system cannot be right. To start with it leads to difficulties about ground and the unsatisfactory necessity for allotting areas and, secondly, it means that the junior commanders have to carry out all their training under the eagle eye of their seniors. Much as a Company Commander may love his Commanding Officer, he doesn't want to see his face daily during company training and the same applies to Battalion Commanders and their Brigadiers during Battalion training. When units are in camp they should not be bothered by more than an occasional visit from the higher Commander and one thorough inspection during their period of training.

Whenever possible choose a training ground well away from Cantonments and the lure of the Club, polo ground and such like attractions. These periods of training in camp are the only times in the whole year when troops do any real practical soldiering and it is not too much to expect of either officers or men to give up for the time being their social and sporting engagements, for which they have ample time during the rest of the year.

As regards periods of training, I suggest the following :—

- (1) PLATOON AND COMPANY TRAINING—18 working days, exclusive of marches, of which the first six are allotted to platoon training.
- (2) BATTALION TRAINING—12 working days, exclusive of marches.

This means that each company will be in camp for about five weeks during the cold weather in addition, perhaps, to short periods spent on brigade training and manœuvres.

To some people this may appear to be excessive, but if officers are really keen and the training is made interesting and not, as one sometimes sees, a toilsome and ineffective bore it is not too much to ask of the troops. Anyhow I have often seen this much, and more, done by a good battalion in a training season without a single grouse.

And now to get down to the actual training to be done. There are two forms of warfare to be taught in India, *viz.*, open warfare and mountain warfare. Except for those troops stationed on the frontier, the former of course requires the most attention, but mountain warfare should never be entirely neglected in view of the fact that wherever the Army in India fights in the future it is almost certain to be in mountainous country. In addition, about a third of our Army in India is at present stationed on the frontier and practically every unit takes a turn of duty there sooner or later. It has been argued and will continue to be argued to the end of all time, particularly by those whose knowledge of mountain warfare is limited, that such training is unnecessary and even detrimental, but the undoubted fact remains that troops unaccustomed to and untrained for warfare in mountainous country are at a very great disadvantage until they have learnt some of the "tricks of the trade" and are physically fit to climb mountains, which they can never be so long as they confine themselves entirely to foot-slogging on the plains.

In some stations such training is impossible, but whenever it is possible, even in a modified form, it ought to be done in addition to open warfare.

Take it then that conditions of ground are favourable for both kinds of warfare and that troops can go into camp. How are we to set about training our units?

We naturally start with platoon training. This can best be done from the Company Camp provided that a platoon from another company is sent out for camp guards and duties. This duty platoon is very necessary and should always be provided. I suggest the advisability of the Company Commander, in conjunction with his platoon commanders, deciding on a definite programme for all platoons to work on. They have all got the same things to teach and there seems to be no objection to this procedure, particularly as some of the platoon commanders are sure to be inexperienced. Let this programme include a few demonstrations, such as a patrol working, a section being properly led in the attack, a platoon taking up a piquet position, fire discipline and control, etc. These demonstrations are of great value and this is one of the ways in which a Company Commander can assist his platoon commanders during platoon training.

Now what else do we propose to do during platoon training? It is impossible to do everything, and much must be left for platoon

commanders to do on odd days from barracks, but the following is suggested as a reasonable programme:—

- 1 day—Demonstrations and defence.
- 1 day—Section leading,
- 1 day—Attack,
- 1 day—Platoon as a fighting patrol,
- 1 day—Piqueting (mountain warfare),
- 1 day—Company Commander's inspection scheme.

One short night operation during the week.

In addition I suggest setting aside a special half hour almost every afternoon throughout platoon and company training for practising fire discipline and control and fire direction.

In the evenings the Company Commander should either have a conference for his platoon commanders and N. C. O.'s to discuss the next day's work or, better still, give them a short T. E. W. T. on the ground.

In practising the attack it is not a bad thing to let two platoons work together, one doing the attack while the other watches and criticises from the defender's point of view, and then *vice versa*.

For the fighting patrol day, which will bring out the handling of a platoon in a running fight, a few enemy with blank, who can be found from the duty platoon in camp, will be necessary.

In defence the main thing to teach is the siting and dispositions of a platoon post, which the men should actually dig. Opinions vary considerably as to how a platoon should be disposed on the ground and it is advisable to hold a T. E. W. T. for platoon commanders and N. C. O.'s so as to ensure that everyone will work on the same lines. This can easily be done by taking the men to several different bits of ground and discussing how a platoon should be disposed on each.

The night operation might consist of a short compass march for platoon commanders and senior N. C. O.'s each man marching on a separate bearing.

So much for platoon training.

For the period allotted to company training the following programme is suggested:—

- 1 day—Demonstrations,
- 2 days—Attack and consolidation,
- 1 day—Piqueting (mountain warfare),
- 1 day—Attack and withdrawal (mountain warfare),
- 1 day—Outposts and withdrawal after dark,

- 1 day—Advanced guard,
- 1 day—Rear guard,
- 1 day—Burning a village (mountain warfare),
- 2 days—Field firing.
- 1 day—Commanding Officer's inspection.

Also one short night operation.

As in platoon training practice in fire discipline, control, etc., and conferences or T. E. W. T.'s will be carried out in the evenings. During company training the Company Commander should seldom, if ever, command the company himself as he will be fully employed in acting as director, and he can't do both. This will give his second-in command and platoon commanders a chance to command the Company in turn. The success and results of company training will depend very largely on the Company Commander's ability to train, to make up simple and realistic schemes and to keep the men keen and interested. The most important thing of all is to carry out discussions of the work done *on the ground* as soon as it is over. I believe in letting the men hear these discussions and I like to see a whole company sitting down and listening to the explanations of the platoon commanders of what they have done and the Company Commander's criticisms thereon. As regards night operations, let them be short and instructive during company and platoon training and don't make the men trail about all night in the dark. We all hate "night ops", but they have got to be done, so do not drag them out unnecessarily. The training will end with the Commanding Officer's inspection. This might be divided into two portions: firstly a short scheme for the whole company and, secondly, the inspection of each platoon in a different operation, such as a platoon attack, a platoon taking up a piquet position, the digging and wiring of a platoon post by day or by night, fire discipline and control, etc.

In some battalions it is the custom to give some sort of prize for the most efficient company at the end of the training season. This leads to considerable competition between companies, general keenness and a decided increase in efficiency.

Lastly, we come to battalion training, the main object of which is to get the battalion to work together as one unit and to ensure that all companies are working on exactly the same lines and can

co-operate with one another in every kind of operation. Here is a suggested programme for the 12 days:—

1st day—T. E. W. T. for company and platoon commanders attack.

2nd day—Attack of the previous day's T. E. W. T., carried out followed by consolidation.

3rd day—Position consolidated on 2nd day to be dug in. Withdrawal after dark.

4th day—Piqueting (mountain warfare).

5th day—Attack and withdrawal (mountain warfare).

6th day—Night advance to surround a village and subsequent withdrawal at daylight.

7th day—Rear guard scheme.

8th day—Outposts.

9th day—Advanced guard developing into an attack.

10th day—Brigade Commander's inspection.

11th day—(1) Artillery and M. G. demonstrations with live shell and ball.

(2) M. G. T.E.W.T. for company and platoon commanders.

12th day—Approach march by day and attack after dark.

The senior officers of the battalion should take it in turns to command and to direct, and it should be definitely decided in the programme who is to do so each day.

Employ a flagged enemy run by an officer on all occasions and whenever possible try to bring about uncertainty and surprise in your operations. There is nothing that bores both officers and men so much as a series of uninteresting set-pieces when everyone knows beforehand exactly what is going to happen.

I remember a very good example of the element of surprise being introduced into a battalion operation when the reserve company was secretly withdrawn and made a surprise attack at dusk on the flank company of the battalion which was holding a defensive position. This flank company had withdrawn its patrols and was taken completely by surprise and over-run, but not before the opposing company commanders had had a slanging match in the dark. The defending company commander was furious at having been caught napping, but at the same time he learnt a lesson which he will never forget.

One of the chief features of battalion training will be the discussions on the day's work, which should be held every evening and in which every detail should be threshed out. These discussions are of real value and, if properly conducted, officers will probably learn as much, if not more, from them than from the actual training itself.

If a battalion is fortunate it will have a section of a battery attached to it throughout battalion training and will thereby learn more about co-operation with this arm than it could possibly do by any other means.

Co-operation with the R. A. F. and R. T. C. are also very important and should be arranged for whenever it can possibly be done.

As regards camping, it is the custom in some battalions, particularly those which have spent much time on the frontier, always to form a perimeter camp, always to dig in and always to have "stand to" at sunset. This custom is sometimes viewed with considerable alarm and despondency by open warfare "experts", but nevertheless there are many points in its favour for troops stationed anywhere near the frontier.

In conclusion one word of advice to all those whose job it is to train soldiers: teach all you know to your officers and men and at the same time improve your own knowledge by systematically picking the brains of all those who are serving under you.



## THE LAST BRITISH RAIDS ON FRANCE AND THE BATTLE OF St. CAST.

By

COLONEL H. W. R. SENIOR, C.B., C.I.E., D.S.O., *p. s. c.*  
(*Late 10th Gurkha Rifles*).

The visitor to the beautiful Cote d'Emeraude of Northern Brittany, who enters the church of the little village of St. Cast, will see in the great north window a representation of the defeat of the British in 1758 on the shores of the Bay of St. Cast by the French. He will, however, find some difficulty in obtaining details of this, the last British landing as an enemy in France. It is the intention of this note to supply as far as possible those details. The British accounts are somewhat meagre, but the Abbé Le Masson of Lancieux has placed at my disposal the very full French and Breton accounts he has collected for the preparation of his local histories.

Pitt was determined to assist Frederick the Great in his prosecution of the Seven Years War. The French fleet had been shattered at Cape La Hague, the French troops were mostly in Germany, whither Frederick's victory at Rosbach had necessitated the hurrying of French reinforcements, leaving the coasts of France unguarded except for a few regular troops and the newly formed Coastguard Militia. Pitt, with the intention of sapping the resources of France, inaugurated a series of descents on her coasts. An attempt on Rochefort late in 1757 had been made, but disagreements between the military and naval commanders (Sir John Mordaunt and Lord Hawke) had led to its failure. In February, 1758, a second attack by the fleet under Lord Hawke on Rochefort had frustrated the despatch of a French expedition preparing there for the relief of Louisberg, but had no other result.

In May, 1758, troops were collected in the Isle of Wight for another expedition. The command was given to Charles, second Duke of Marlborough, with Lord George Sackville as his 2nd-in-

command. The troops destined for this expedition appear to have been—

*Cavalry.*—The light troops of the 1st and 3rd Dragoon Guards and of the 1st, 2nd, 3rd, 6th, 7th, 10th and 11th Dragoons, under the command of Brig.-General Elliott, afterwards Lord Heathfield, the “Hero of Gibraltar.”

*Artillery.*—Three companies of Artillery and a large Siege Train.

*Guards Brigade.*—Under Major-General Alexander Drury.

Two battalions of Foot Guards.

Two battalions formed of all the Grenadier companies of the infantry of the force.

*1st Brigade.*—Under Major-General Granville Elliott. The 24th, 34th and 72nd.

*2nd Brigade.*—Under Major-General Mostyn. The 5th, 8th, 25th, and 36th.

*3rd Brigade.*—Under Major-General Waldegrave. The 20th (which Wolfe had just left on promotion after 8 years command), 30th, and 67th.

*4th Brigade.*—Under Major-General Boscawen. The 23rd, 33rd, and 68th.

These 16,000 troops with some 6,000 marines were crammed into transports.

*1st June.*—Set sail escorted by a squadron under Commodore Richard Howe, while two squadrons of some 24 ships of the line under Lord Anson and Sir Edward Hawke held the seas off Brest to prevent any interference at sea by the French.

*2nd June.*—Tides and frequent calms compelled the transports to anchor near Cape La Hague, which they had sighted at 8 a. m. that morning, and during the day to anchor repeatedly.

*4th June.*—In the afternoon the British transports anchored about three miles from St. Malo, but as any attack on that dangerous coast was out of the question they sailed away later along the coast eastward.

Let us now turn to the French. For the following account of the French doings I am indebted to the diary of the Chevalier Mazin, *Ingenieur de la Place*, St. Malo, who complains that he was under the

orders of both the Ministries of War and of the Navy and could get nothing done by either. Besides strengthening Fort de la Varde he wished very especially to fortify the promontory of the Cite (site of the old Roman Town Alethum) as a defence for the arsenal at St. Servan, but permission was refused him.

In the absence of the Governor, the Duc de Penthièvre, the Lieut.-General Vignerot de Richelieu, Duc d'Aiguillon, was Commander-in-Chief in Brittany. The Marquis de la Châtre, lately Colonel of the *Régiment de Cambresis*, "brave but too credulous," was the Governor of St. Malo. Besides the new coastguards, wretched peasants hastily armed and uniformed, the following French troops were available :—

*At St. Servan.*—One battalion of the *Régiment de Boulonnais*, and expected to arrive on 10th June the militia *Régiment Fontenay la Comte*.

*At Dinan.*—(20 miles distant) the cavalry *Régiment de Marboeuf*. This was ordered to send detachments to St. Meloir, St. Coulomb, St. Etienne, St. Vincent, and Paramé, and to move to St. Servan by the 15th, (which seems a somewhat dilatory proceeding).

The French had received news of the sailing of the British expedition.

On the 2nd June the Governor, Marquis de la Châtre, returned to St. Malo from a visit to the Duc d'Aiguillon. On the 3rd being pressed by his Engineer, named above, to inspect the coast defences he rode to Cancale. Instead, however, of taking the fatiguing ride round the coast batteries, he went there by the direct road, and after partaking of its famous oysters, he rode direct back again in time to dine at 1 o'clock with the *Régiment de Boulonnais*.

The same afternoon, the Engineer informs us, the Mayor, Monsieur de la Vieuville Le Breton, was called in to arrange for the provisioning of the harbour forts, and was provided with money for the purpose. Taking the money with him he retired to his country house at Pussinais and did nothing.

During the morning of the 4th June the coast batteries signalled the approach of the British fleet, dimly seen through a thin fog. At 11 a.m. it was signalled from Fort La Latte, and as the French artillery commander M. de Souville and the Governor were dining

together the British fleet anchored near the Banquetiers off the harbour of St. Malo. It was at once reconnoitred by the Chevalier d'Ars commanding a French frigate. He reported it to consist of 115 ships and to have anchored to await the turn of the tide before moving towards Brest!

*5th June.*—At 4 a.m., the British fleet weighed anchor on a signal gun from the flagship and passing Cezembre and Cap de la Varde was out of sight of St. Malo by 9 a.m. and anchored in the Bay of Cancale after mid-day.

M. de France de Landal, *Capitaine-Général de la Garde-Côte de Dol* had mobilised his coastguards and manned the shore batteries. That at Barbe-Brulée of three 8-pounder guns was engaged by a British frigate and its guns were withdrawn to Cap de la Chaine. By 4 p.m. de la Châtre had concentrated here, beside the coastguards, one squadron of the *Dragones de Marboeuf* and the *Bataillon de Boullonnais* under the command of Colonel de la Tour d'Auvergne.

Marlborough and Howe in a fast cutter reconnoitred the position and determined to land at La Houle. At 6-30 p.m. three British frigates approached, and while two fired on the French troops at the top of the cliffs, the third with its heavier armament and musketry fire from its tops soon silenced the French battery at La Houle, and then turned its guns on the village, believing it to be full of French troops.

De la Châtre thereupon ordered the evacuation of all the coast defences, the ammunition to be thrown into the sea, and infantry and coastguards back to St. Malo for the defence of that walled town. The cavalry were ordered back to Dinan.

The British fleet had come provided with a number of flat-bottomed boats rowed by 12 oars, each capable of holding 70 men, and the disembarkation was commenced under the protection of the frigates. By 9 p.m. General Drury and a couple of Guards battalions were ashore and also General Mostyn with the 5th. The disembarkation continued during the night and next day.

Some of the 8-pounders and two mortars were got ashore, but foul weather made the landing of the heavy artillery impracticable

British reconnaissances were pushed out to Guimorais, Haut Pays, St. Vincent and St. Ideuc, coming into contact with French patrols.

St. Malo, being a strongly walled town, at high tide entirely surrounded by water except for a narrow isthmus called the Sillon was easy to defend against a force ill-provided with artillery. The French dug trenches across the Sillon, mined the approaches, and placed fougasses on the beach. They destroyed the bridge of Rontonan (near St. Servan) and destroyed the dykes of the Talard, flooding the land so making artillery movement very difficult. Mazin states that the French learnt the details of the British force from some Swiss deserters.

*7th June*—The French continued work on the defences of St. Malo, and at mid-day were reinforced by the militia battalion *Fontenay le Comte*, which crossed the Rance in boats from Dinard.

The Duke of Marlborough now detached some light cavalry and the battalion of the Coldstream Guards under Colonel Julius Caesar to proceed to Dol, (distant 22 miles), where they were well received by the inhabitants. They remained one night, paid for all they took and retired without incident "not having seen any troops of the enemy, or gained the least information."

Boscawen's Brigade was ordered to remain at Cancale to prepare entrenchments to cover the future re-embarkation, when necessary, and to escort the heavy artillery, when landed. Bad weather and allee shore made the disembarkation of the siege train in Cancale Bay impossible. The brigade, therefore, prepared a redoubt at Cap de la Chaine, and another at Ville Carnier, with lines of trenches on each side of Cancale.

The rest of the British force advanced in two columns on St. Malo. The northern column consisting of the Guard's Brigade (less one battalion at Dol) and the first Brigade camped just west of Parame under the command of Lord George Sackville.

The other Column halted at Fontaine les Pelerins but pushed forward a detachment to the Terte du Merle.

At 8 p.m. "each cavalry soldier carrying a foot soldier behind him armed with hand-grenades" detachments were sent forward and commenced the destruction of the French privateers and other

ships in the basins of Chasles, Talard, Trichet, and Belle Entrée, and burnt the large rope-works at La Chaussée, now the Arsenal Maritime.

8th June.—Having failed to land the siege artillery at Cancale Howe this day attempted to enter the mouth of the Rance so as to reach St. Servan for this purpose, but again contrary winds and the very difficult entrance channel made it impossible.

This day was passed in the further destruction of the French ships and naval stores, to which the only resistance offered was that made by Chevalier d'Ars in his frigate *L'Orphelin de la Chine*, which from positions in the River Rance fired on the British working parties.

The Engineer Mazin says: "By evening all possible destruction was complete, and requisitions having been made for food, the advanced parties joined the main forces at Parame and Fontaine des Pelerins. This movement was misconstrued in St. Malo into preparations for an attack, so the alarms sounded and the French manned their defences, while the English, also "deceived by the noise of the French drums and their movements into thinking that a sortie was coming forth from St. Malo, stood to arms. Both forces, however, had to endure nothing but a terrible storm and heavy rain." It would appear that the Duke of Marlborough had some intention of carrying St. Malo by storm, for one British account says: "It was discovered at once how incompetent and uninformed the authorities were, whose business it was to provide the machinery for war. It was the old story over again, and this time in sending forth an expedition, whose orders were to assault a town with high walls, which must needs be scaled, when the time came to use their scaling ladders, they were too short."

The Duc d'Aiguillon travelling day and night from Brest arrived this evening, entering St. Malo at 8 p.m. by boat across the Rance from Dinard. Two dismounted squadrons of *Dragons de Marbœuf* also reinforced the garrison travelling by the same route across the Rance.

9th June.—Howe again attempted to land the siege train, bringing his fleet up close to the shore, just east of St. Malo. It was not to be done, foul winds and weather, and forty foot tides, and the saw-like reefs of rocks, made it quite impossible. He gave up the attempt and withdrew the British fleet to its anchorage in the Bay of Cancale.

The British force destroyed the Fort de la Varde, while the French reoccupied the little fort of Vair, from which they had withdrawn on the British approach.

10th June.—British cavalry reconnaissances had reported French troops at Pontorson and at Chateauneuf (distant respectively, 45 miles and 18 miles).

Marlborough unable to land his heavy artillery and without effective material for escalade determined to retire, and by mid-day the British were falling back on Cancale, followed by the St. Malo garrison under Colonel de la Tour d'Auvergne, who however did not press them.

At midnight the embarkation commenced with the cavalry and guns.

11th June.—The British rearguard evacuated St. Coulomb for Cancale. The embarkation was delayed by the weather, but the French made no sort of attempt to interfere with it.

12th June.—The British were all aboard by mid-day, leaving behind nothing but a few scaling ladders and a couple of wheel-barrows, which had been tipped out of a boat and were left exposed on the sand by the falling tide. Their total loss was 30 killed and wounded.

The French losses I have not been able to obtain as regards personnel, but 33 naval vessels and 70 privateers and merchant ships were destroyed, and all the naval stores at St. Servan were burnt, a loss estimated at £800,000.

16th June.—The fleet remained at anchor till this date in the Bay of Cancale and then sailed across to Granville, where inclement weather prevented any landing. Thus repeatedly appearing off the coast of France and then being driven out into the Channel again time passed with the greatest discomfort to the troops crowded on the transports until the ?

22nd June.—The British fleet anchored once again off St. Malo at the same anchorage, where they had been on the 4th. Some prisoners were exchanged and the Duke of Marlborough sent in two rings, which had been looted in St. Servan, by a soldier, who was hanged for the crime! The Engineer Mazin remarks in his diary "*on peut dire qu'ils ont vécu dans une grande discipline.*"

27th June.—The British fleet appeared off de Havre. Finding the French here too well prepared after two days inactivity the fleet sailed again.

29th June.—The British fleet appeared off Cherbourg. The Guards and Grenadier battalions were actually put into boats to land, but the weather proving adverse, food and forage beginning to fail, the expedition was abandoned.

1st July.—The returned fleet anchored at Spithead.

5th July.—The troops landed in the Isle of Wight, having been since the embarkation at Cancale more than three weeks tossing in the Channel uselessly.

Strenuous efforts were being made in America to repair the failure of Braddock and to deal with Montcalm, which resulted in the following year in the fall of Quebec. In India the battle of Plassey had settled the French intrigues in Bengal. Prince Ferdinand's success at Crefeld in Westphalia on the 23rd June had decided Pitt, though still determined to continue his raiding policy on the French coasts, to reinforce the Prince, and certain battalions were withdrawn from the force in the Isle of Wight for this purpose. The Duke of Marlborough and Lord George Sackville exerted their interest also to proceed to Germany, where the former died of dysentery at Munster on the 20th October, 1758, and the latter was tried by Court Martial and broke for his conduct at Minden in 1759, when in command of the British Cavalry.

Lord Bligh was then selected for the command of the expedition in camp in the Isle of Wight and was given "secret instructions" as follows:—

"To make some effectual impression on the enemy, which by disturbing and shaking the credit of their public loans, and at the same time securing and protecting the commerce of Our Own Subjects by striking at the principal seats of their privateers, as well as by disconcerting and in part frustrating, their dangerous and extensive operations of war, may reflect lustre on our arms, and add life and strength to the common cause.".....

"Exert your utmost endeavours to land, if it shall be found practicable, with the troops under your command, at or near



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Cherbourg on the coast of Normandy, and to attack the batteries, forts, and town of Cherbourg".....

"to carry a warm alarm along the coast of France and to make descents upon any part or parts thereof; and attack any place, that may be found practicable from the easternmost point of Normandy as far westward as Morlaix inclusive."

The only information given Lord Bligh appears to have been that Brest was very strongly occupied by French forces under the Duc d'Aiguillon, and that some 10,000 men under Marechal Duc de Luxembourg were in the Cherbourg peninsula.

He had the same cavalry and artillery as his predecessor but his infantry was re-organised as follows:—

*Guards' Brigade.*—Under Major-General Alexander Drury.

Two battalions of Foot Guards.

One battalion formed from the Grenadier companies of the Guards' battalions.

One composite battalion formed from the grenadier companies of all the battalions in the force.

*1st Brigade.*—Under Major-General Granville Smith, 24th, 34th, and 72nd.

*2nd Brigade.*—Under Major-General John Mostyn, 5th, 30th, and 36th.

*3rd Brigade.*—Under Major-General Boscawen, 33rd, 67th, and 68th.

*1st August.*—The fleet of transports escorted by a squadron under Commodore Richard Howe sailed from the Isle of Wight.

*6th August.*—This fleet appeared before Cherbourg and bombarded the town.

*7th August.*—The Guards Brigade supplemented by the 5th Foot landed at the Baie des Marais 6 miles to the west of Cherbourg, in the face of opposition by some 3,000 French, among whom was a battalion of the Irish Brigade in the service of France\*, with a loss of only 30

\* It was of this Irish Brigade that the verses were written:—

"Said the King to the Colonel,  
The complaints are eternal  
That you Irish give more trouble than any other Corps."  
"Said the Colonel to the King,  
That complaints no new thing  
For your enemies have said it a hundred times before.

men, being well supported by the fire of the British bomb vessels. They captured three French brass field pieces and entrenched themselves between Querqueville and Erville.

8th August.—Remainder of the force landed and advanced at once on Cherbourg. The town not being then fortified on the land side the French garrison under De Raymond, consisting of—

4 battalions of infantry.

3 squadrons of *Dragons*.

3,000 *Gardes Côte*.

retired at once on Vallognes (13 miles to the south), where they were joined by 10 battalions of infantry and 6,000 militia under the Maréchal Duc de Luxembourg. The town surrendered.

On the succeeding days the British unhindered destroyed the docks, entrance piers, the harbour defences, and burned all the shipping that was there. The docks had only been completed a few years before and bore an inscription commemorating their construction and stating that they stood "for all Eternity." Except in the Guards and in one or two select battalions the discipline of the troops broke up in the local wine shops.

"A manifesto had been published containing a promise of strict discipline if no resistance was made: this quieted the inhabitants, prevented them from deserting their habitations, and contributed much to the civility with which they received their guests. Notwithstanding the soldiers committed great outrages, and the general discipline of the army was relaxed. The soldiers lived at large, and indulged themselves like brutes in riots, licentiousness, and plunder: a breach of faith very unbecoming to the English and which had well nigh proved fatal to themselves, had it not been through the strict discipline with which the Foot Guards set a laudable example of sobriety, the whole army was in danger of being cut off, in that dissolute scene of drunkenness that ensued a discovery of the wine magazines: though there was a body of the enemy troops superior to them under a Marshal of France within a few hours march."

Why Luxembourg did nothing during the whole of this week of destruction is not comprehensible. For it was not till 3 a.m. on the morning of 16th August that Lord Bligh, having completed his work of destruction and levied a contribution of £ 3,000 on its inhabi-

tants, marched out of Cherbourg and recommenced to embark. Twenty-four brass guns and mortars were taken away as a trophy, and were later exhibited in Hyde Park and placed in the Tower.

18th August.—Delayed by contrary winds the fleet was unable to leave till the morning of this day.

19th August.—A fierce storm drove it into taking refuge in Weymouth Harbour, where it remained anchored for three days, the troops being confined on board.

22nd August.—At midnight the fleet of transports with their escort stood out to sea once more, but were again forced back to anchorage at Weymouth by contrary winds.

27th August.—The French privateer "*Mimi*" brought the news into St. Malo of having passed through the English fleet in a slight fog, apparently sailing for Brest.

3rd September.—At 5 a.m. this morning Fort La Latte reported to St. Malo the arrival off the coast of the British fleet of 3 battle-ships, 4 frigates, 4 mortar vessels, and some privateers escorting about 90 transports, sailing N. N. E. in a light wind. Two hours later they could be seen from the top of the St. Malo Cathedral tower. By mid-day the rising tide brought them within view of the walls of St. Malo. By evening they had anchored off the Ehbien and Agot islands. To quote from Le Masson's account—

"The arrival of the British fleet caused the greatest excitement to the inhabitants of Brittany. . . . In the meantime St. Malo had been strengthened by 50 waggon loads of ammunition and with cast iron guns and mortars, and on the afternoon of this very day 30 gunners and 6 bombardiers arrived. . . . The sea forts and wall batteries were garrisoned and victualled under the direction of Lieut. De Scott, the burghers ordered to their posts. The gates were closed and the Sillon causeway was cut. Every householder was ordered to place a large barrel of water in front of his door for use in case of fire. All the precautions so successful in the previous raid were taken. The armament of St. Malo now consisted of 250 guns and 13 mortars."

4th September.—The British fleet moved eastward and anchored off the Garde Guerin, out of gunshot from the Harbour Fort. After firing 5 shots the French shore battery was silenced by the concentrated fire of the three British frigates. At 9 a.m. the sea being calm the

disembarkation commenced. The infantry were all quickly landed. In the afternoon the weather changed rapidly and only 60 Light Horse troopers and 2 field guns could be got ashore, and indeed no more cavalry or artillery were able to join the force during the succeeding days. "This night was indeed a very terrible one on account of the weather."

During the day a maladroit movement of one of the frigates wrecked 2 boats and 66 men of the 5th Foot were drowned.

The British force encamped in front of the Garde Guerin, where now are the 1st, 4th and 3rd holes of the golf links. Detachments occupied the hamlets of La Chapelle, Ville Hue, Mesnil, La Fosse and La Marre. Five companies of Grenadiers occupied the little town of St. Briac and burnt some small shipping in the harbour there. Lord Bligh took possession of the priest's house in St. Lunaire with his staff billeted in the houses round, with an escort from the 1st Brigade. Reconnoitring parties were pushed out to Dinard and St. Enogat, but returned in the evening.

The French in St. Malo continued their preparations for defence. The naval force available, one frigate and five privateers were anchored at the mouth and along the course of the Rance. An armed gunboat was sent up the river to bring in all boats so as to deny their use to the British in crossing the river. The ferry at Jouvent-Passagère was guarded by a strong detachment. Two hundred British prisoners were removed from Dinan and despatched into the interior.

*5th September.*—The British issued a proclamation that they were not at war with the Bretons but were only combating the ambitions of the French King. Unfortunately the troops had to a great extent lost all sense of discipline and filled the countryside with marauding and pillaging parties. The very few light cavalry landed were incapable of rounding up these marauding parties, who committed great havoc in all the neighbouring villages.

A detachment sent to Dinard was unable to capture the small fort on the Bec de la Vallée, this being well supported by the fire of the six French ships in the mouth of the Rance. This detachment accordingly retired back to camp after pillaging the little villages of Ville-es-Meniers, Dinard and St. Enogat.

At mid-day a strong north-west wind forced the British fleet to move to a more northerly anchorage, more clear of the rocky and dangerous coast.

The two French battalions in St. Malo were reinforced by two battalions of *Gardes-Côte* from Dol. The Governor, Marquis de la Châtre had a battery built to sweep the landing places in front of St. Malo. We read that afterwards the French Auditor-General objected to this as being an unnecessary expense, and the unfortunate Marquis had to make good the cost from his own pocket!!

*6th September.*—At a Council of War held this morning the Admiral stated the impracticability of the fleet co-operating from the sea in an attack on St. Malo. He further insisted on the impossibility of his even remaining where he was. The fleet therefore moved and anchored to the westward in the Bay of St. Cast. This increased the alarm in St. Malo as they feared the landing of another British force there. De la Châtre also was of opinion that the British intended to land again at Cancale in co-operation with the landing at St. Briac. He was much puzzled by the inaction of the British, who, beyond making an attempt again to plant batteries at Dinard and on the Vicomte, which was prevented by the fire of the French ships in the Rance, and an attempt to land a party on the Ile des Ehbien, which was frustrated by the small *Gardes-Côte* garrison of the tower there, did nothing.

The Duc d'Aiguillon arrived at Lamballe by post chaise from Brest. He had appointed Lamballe as his point of concentration and was joined there in the afternoon by Comte Morel d'Aubigny with a battalion of the *Volontaires Etrangers* and 2,000 *Gardes-Côte* from Treguier.

*7th September.*—Lord Bligh finding the width of the Rance was too great for effective action against St. Malo, withdrew all his troops from Dinard and its neighbourhood. He despatched a reconnoitring detachment of 200 men and a few troopers under his Q. M. G., Colonel Clerk, towards Le Guildo to examine the fords of the Arquenon with a view to his being able to regain touch with his ships at St. Cast. About mid-day he held a review of his forces on the high ground between Le Negrais and Ville Bily. This caused the French great surprise but was probably done to keep his troops employed and to hinder them from marauding.

The wind having shifted to the south the British frigates left their anchorage and threatened the mouth of the Rance and engaged the forts on the islands without any result. Boats also buoyed the rocks north and south of the Bay of St. Cast.

Meanwhile the Duc d'Aiguillon was hurrying up all his available troops, utilising impressed farm carts to assist. He despatched d'Aubigny's little force from Lamballe to Dinan in order to ensure his connection with Normandy and with France, and to cover the collection of supplies in that market town.

He reported this day to Paris that the British movements were so extraordinary that the general opinion inclined to the belief that Lord Bligh's force had been landed as a feint to draw all French available troops in Brittany and Normandy towards him, and so to open the way to the landing of a second army, which should suddenly attack Brest, L'Orient or some other such place. He himself, however, considered this to be unlikely, and although he recognised that the British could re-embark and be off Brest in 24 hours, while his force concentrated in the north would take four days to reach that place, he had determined to go direct to the attack of the British and to trust in Providence.

The British reconnoitring detachment sent to the Guildo captured near his country seat of Haute-Metrie, near Tregon, M. Maurille Alexis La Choue de la Metrie. This gentleman attempted to give misleading replies to the questions of the British leader. On arrival at the Guildo similar questions put to the Carmelites of the little priory there disclosed de la Metrie's attempt, and he narrowly escaped being hung on the spot. However, during the return journey, he made his escape and getting back to the Guildo during the night crossed the ford and made his way to St. Brigitte, where he awoke the priest and sent him on to Matignon to warn the local gentry of the projected British advance. He then returned to the Guildo, where in the morning he was joined by some 70 local Breton peasantry brought by the Sieur Joseph Amaury de la Motte de la Ville-es-Comtes and the Chevalier Langlays de Premorvan and the Sieur Hioust des Villes Audrain of Matignon. To the last named we are indebted for an account of the gallant defence of the fords across the Arquenon by these few armed peasants.

8th September.—Although reveille sounded in the British camp at 3 a.m., it was not till 7 that the tents were struck, and mid-day before the British force marched off in pelting rain, intending to reach Matignon that afternoon. East of Tregon in the marshes by the sea, shots were exchanged with some of the Breton peasants under Rioust des Villes Audrains, who were scouting. These soon retired and joined their companions at the Guildo.

The British advanced guard consisting of some light cavalry and 300 grenadiers reached the ford of the Guildo at 3 p.m. The tide was rising and it was essential that vigorous action should be taken to secure the passage. The peasants on the further bank, concealed among the houses and garden walls, fired vigorously at anyone who approached the fords. Their heavy musket discharges echoing among the rocks of the steep hill sides in the narrow valley gave the impression of far greater numbers than were actually present. The British halted.

On his arrival Lord Bligh sent forward a Carmelite monk with a message for the defenders. This worthy man was also promptly fired at and beat a hasty retreat. The well-known Prior himself with a couple of his monks were then sent forward, but were treated with even less respect. The only two guns of the force were brought up and fired till nightfall, with little or no effect. The force bivouacked, the Guards Brigade on the height of Belle Vue to the north-east of the castle ruins, the other Brigades in succession, 1st, 3rd, 2nd, to the south along the heights, with the composite Grenadier battalion on the left about La Pichardais.

A private letter from an officer with the force says : " You will, perhaps, be surprised when I tell you that we marched the whole day in one single column : it was therefore so late before our rear came up that it was judged proper not to attempt to pass that night."

French detachments from the St. Malo garrison followed the British movement and picked up many marauders.

D'Aubigny's force at Dinan now consisted of—

*The Regiment de Brie.*

*1 battalion de Marmande.*

*1st battalion Volontaires Etrangers.*

2 squadrons *Dragons de Marboeuf*.

3 battalions of local militia.

The Duc d'Aiguillon ordered these to move to Plouer, and the St. Malo garrison under the Marquis de la Châtre to Ploubalay in the British rear.

9th September.—The crossing would have been possible at early dawn, but the British made no attempt. Fortescue in his "History of the British Army" remarks: "It speaks volumes for the incapacity of Bligh and his staff that the passage of the river was actually fixed for 6 o'clock in the morning, though that was the hour of high water. It was of course necessary to wait for the ebb tide: so it was not till 3 in the afternoon that the troops forded the river, even then waist deep, under a brisk fire from small parties of French peasants."

At 11 o'clock Lord Bligh accompanied by Prince Edward (afterwards Duke of York and brother of King George III), went to the Abbey at St. Jacut. The Prince had had a narrow escape the previous evening, for while looking out of a window of the Carmelite monastery at Le Guildo a Breton musket ball had broken the pane of glass by his head. It was therefore judged advisable to get him out of harm's way, and he was accordingly sent off by boat and put aboard H. M. S. Maidstone.

At 3 o'clock the Guards Brigade crossed by the ford to Le Val, while a flanking detachment crossed from St. Jacut to Quatre Vaux. The main body and the artillery (2 guns) crossed at the Guildo. The light cavalry galloped across the ford and the brave Breton peasant defenders, who had held up the whole British army for 24 hours, escaped with difficulty across the fields and woods of the high ground behind the village.

During these crossings Lord Frederick Cavendish, Captain Jones and several men were wounded, also "some of the soldiers lost their Firelocks in the water, and were almost drowned, having escaped narrowly by being hauled out with Tent poles." The British encamped along the Matignon road in a line facing south, the Guards about Notre Dame du Guildo, the other brigades successively westwards 1st, 3rd, 2nd with the Grenadiers near La Mardreux.



The French accounts lay great stress on the brutalities suffered by their peasants forced to guide the British columns. That this was customary is well known, and that the unwilling guides were not always treated with severity is shown by the following account:—

“ A French shepherd was compelled to act as a guide to the Coldstream Guards, by whom they were purposely misled. The late General, then Colonel Vernon, ordered him to be hanged. That officer used to say he never witnessed a more affecting sight than the efforts made by the shepherd’s dog to interrupt the men when they proceeded to put the rope round his master’s neck. The executioner had no small difficulty in managing to keep the affectionate animal off, though assisted by two drummers, who enjoyed the reputation of having been practised dog-stealers in Westminster. ‘ But ’, added the General, ‘ John Bull is a poor creature when it comes to the push : I could not find it in my heart to put the stubborn fellow to death for his patriotism, and after well frightening him, and almost breaking his heart by threatening to have his dog destroyed, I let him go, and the faithful creature with him.’ ”

Meanwhile the French were closing in. D’Aubigny’s force was at Pleslin the St. Malo garrison under de la Châtre had reached Plou-balay, Duc d’Aiguillon himself with 2 squadrons and 800 *Gardes-Côte* was at Plancoet. The 2nd battalion *de Penhievre* had arrived at Jugon, a detachment of the 3rd *Volontaires Etrangers* had reached St. Potan, strong French forces under the Comte de Balleroy were near Lamballe. During this day the French had picked up many British marauders, who had done much looting and destruction.

*10th September.*—This morning the British moved early. The Coldstreamers were detached from the Guards Brigade and sent to St. Cast direct to convoy provisions back to the force. With them went the Chief Engineer, Colonel Cunningham, with orders to reconnoitre the beach and “ see what was proper to be done ” in case of re-embarkation. This detachment on reaching Bourg St. Cast encamped round the Moulin d’Anne, got into communication with the fleet, and sent forward a couple of companies to the little fort of L’Isle St. Cast to demolish it and to throw its guns into the sea.

The remainder of the British force marched direct on Matignon, from which place they drove a detachment of the French,

which had arrived by a forced march during the night, consisting of—

2 squadrons *Dragons de Marboeuf*.

Grenadiers of the *Regiment de Penthievre*, a company of the *Regiment de Talara*.

From the prisoners taken in this skirmish Lord Bligh heard of the approach of 10,000 French from Brest.

The British camped on the high ground south and east of Matignon, facing south, from west to east successively, Guards, 1st, 3rd, 2nd, and Grenadiers. Reconnoitring forces pushed out towards St. Potan and Pleboulle were fired on and withdrew back to Matignon.

During this day the Duc d'Aiguillon moved his headquarters with its escort to St. Potan.

The 2nd battalion of the *Regiment de Penthievre* reached Plancoët.

The Comte de Balleroy occupied Henanbihen with an advanced post of 200 Dragons, and south of this place bivouacked his force consisting of—

13 field guns, and 2 mortars.

*Regiment Royal des Vaisseaux.*

*Regiment de Bourbon.*

„ *Brissac.*

„ *Breue.*

„ *Quercy.*

The Marquis de la Châtre with 3 guns and the St. Malo garrison crossed at the Guildo, where they were joined by the force under the Comte d'Aubigny. They advanced, but finding the British in force at Matignon, fell back, and being unable to recross the Arquenon on account of the risen tide, moved south-west by country lanes and joined the Duc d'Aiguillon at St. Potan before mid-night. During this move the Gardes-Côte of Dol met the Gardes-Côte from south-west Brittany. Owing to the difference of language between the French of Dol and the Breton tongue they fired on one another in the darkness, causing the death of Capitaine de St. Pair, Seigneur de Carlac.

The Marquis de Broc with 200 Dragons and 8 companies of Grenadiers was ordered to keep in touch with the British during the night.

One French account states that 'the British passed the night without any outposts, or even patrols, so that our advanced troops during this night were only separated from the British camp by a hedge, through which their troops could be seen, a large number asleep, others cooking, while their unsaddled horses were picketted in the meadow beyond."

Lord Bligh, warned of the proximity of the French and of their strength, held a Council of War, at which it was decided to retire to the ships and to re-embark. Lord Bligh states that the only contrary advice was from his Q. M. G. Lieut.-Colonel Clerk, "whose advice it was, to disembark the rest of the Light Cavalry and field pieces, and advance to attack the enemy."

11th September—Warned of the near neighbourhood of the French force Lord Bligh determined to retire to his ships. Fortescue remarks :—

"Constant alarms during the night showed that the enemy were near at hand: and it would have been thought that Bligh, having made up his mind to retreat, would, in so critical a position, have retired as swiftly and silently as possible. On the contrary at 3 o'clock on the morning of the 11th the drums beat the assembly as usual to give the French all the information they desired, while the troops moved off in a single column so as to consume the longest possible time on the march."

"By the time the troops reached St. Cast they were worn out, hungry, angry at being so abominably led, and shamed at being called on to retreat before an enemy over whom they were so competent to triumph. They came to the shore a mixed-up crowd with no semblance of discipline.

From Matignon to the beach is only three miles, but it was 9 o'clock before the embarkation was commenced. Six frigates and two bomb vessels anchored broadside to the shore to cover the embarkation. They were so close that musketry fire from their tops was also available. The cutters and smaller vessels were also arranged along the shore to assist by their fire. They would have been better

employed in embarking the troops as the rowing boats, which only were used, had a long way to go to reach the transports further out in the roadstead. The embarkation was further hindered and delayed by the great booty of cattle and horses, which the British army had brought with it.

Owing to the excellent arrangements made by the Royal Navy, by 11 o'clock the greater portion of the force had been embarked, only a rear-guard under Major-General Alexander Drury consisting of half the 1st Foot Guards and the composite battalions of Grenadiers were on the beach when the French attacked.

The beach of St. Cast faces to the north-east. It shelves so gradually that the ebb tide lays bare an expanse of sand a quarter of a mile broad. This is fringed by a belt of sand dunes of varying width from which rise the wooded slopes of the mainland to an average height of 150 feet above sea level. These heights closed in north and south as cliffs, near which stood respectively the little fisher villages of L'Isle St. Cast and La Garde St. Cast. On the southern edge of this semi-circle of heights, at its highest point about 200 feet above sea-level stood a windmill—the Moulin d'Anne—, and a short distance north of it the church and village of Bourg St. Cast.

On his arrival the Duc d'Aiguillon established his headquarters at the Moulin d'Anne, where Breton songs of the period accuse him of paying more attention to the miller's pretty wife than to the battle. However he ordered the formation of his force in four divisions to attack the British rear-guard, which was in some hasty entrenchments on the farther edge of the sand dunes above the flat beach.

1. *Right Column*, under the Comte de Balleroy—

- 2 battalions *Régiment de Bourbon*.
- 2       "       "       *Brissac*.
- 1       "       "       *Breue*.
- 1       "       "       *Quercy*.
- 2       "       "       *Royal des Vaisseaux*.

2. *Centre Column*, under the Marquis de Broc—

- 6 companies Grenadiers.
- 400 dismounted *Dragons de Marboeuf*.
- 12 "piquets" of Infantry.

3. *Left Column*, under the Comte Morel d'Aubigny—1 battalion *Régiment de Boulonnais*.1       "       "       *Brie*.1       "       "       *Marmande*.1       "       "       *Fontenay le Comte (militia)*.1st     "       "       *Volontaires Etrangers*.4. *Reserve*, under the Chevalier de St. Pern.—2nd battalion du *Régiment de Penhièvre*.3rd     "       "       *Volontaires Etrangers*.all the *Gardes-Côte*.

All the available artillery under the command of the Inspector-General of Artillery, Tabouraux de Villepatour, were placed in battery in front of the Moulin d'Anne. Their opening fire sank three large barges full of British troops. This battery consisted of 13 guns and 2 mortars from Brest, and 3 guns from St. Malo. 8 guns and 2 more mortars from St. Malo reached the field after the action was over.

About 11 o'clock the Left Column (d'Aubigny) came first into action with the British rear-guard. The British naval guns had pelted the heights with shot, but the distance was too great to do much harm and the French advance was protected by the woods and by the ravine descending from the hamlet of Lesrost down which they marched. At the head of the column came the Grenadiers and a party of 20 Breton country gentlemen, who had volunteered.

As soon as the French column issued from their cover they came under a furious fire from the British naval guns, from the Marines in the tops, and from the entrenchments at the edge of the beach, and were, despite the gallant leading of de Polignac, Colonel of the *Régiment de Brie*, and of La Tour d'Auvergne, Colonel of the *Régiment de Boulonnais*, compelled to take refuge among the sand dunes, from which they could not be induced to advance.

D'Aubigny then appealed to the Breton gentlemen crying, "*Allons messieurs, donnez l'exemple à ces gens-là.*" The Breton gentlemen rose from their shelter and charged the British right, and were promptly followed by the Grenadiers. They, however, suffered severely and were driven back by a British counter-attack. This, enfiladed by the French guns on the hill, was taken in flank by the Centre Column (Broc), and attacked in front by the rest of the Left Column, was

driven back into the entrenchments which the French entered with them. The British naval guns no longer being able to distinguish friend from foe were forced to cease fire, and the falling tide compelled the ships to increase their distance from the shore. The French guns had destroyed many of the boats and so cut off the means of retreat of the British.

Many were drowned or shot in the water in attempting to gain the boats that remained.

“ Prince Edward attempted to go on shore to assist in bringing off the troops. Maddened at the sight he clandestinely got out of his porthole into a boat alongside, but was stopped by the Commadore from proceeding on the desperate service.”

By 2 o'clock the action was at an end, although a portion of the Guards, instead of being driven into the sea, gained the rocks of La Garde, where they defended themselves against all attacks till their ammunition exhausted, when they were compelled to surrender.

The French Right Column, which was to advance by Vieuville, was late and was not seriously engaged, its total losses amounting only to 2 officers and 23 men.

The French losses were:—

Killed.—Officers	7,	Men	148,	Bretons	160,	Total ..	215
Wounded.—Officers	57	„	283	„	346	„ ..	686
							<hr/>
Grand total ..							901

This, however, does not include the Breton gentry, of whom Le Masson gives the names and genealogy of 14 killed and wounded, nor does it include the casualties of the Gardes-Côte, who, however, were little used in the battle.

The British losses were:—

Killed and wounded—Officers and men	Total ..	1,160
Prisoners—Officers 31, Men 701.	„	732
		<hr/>
Grand total ..		1,892

Among the prisoners were Lord Frederic Cavendish and Sir Charles Gilmore and four Captains of the Royal Navy, who were on shore on embarkation duty. These returned to England on parole to settle the exchange of prisoners, which was completed in December. Meanwhile the prisoners were confined in the chateau at Dinan.

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The French were buried in the spot now known as the "*cimetière braves*," the British in the sands of the sea-shore and the sand-dunes where they fell.

At 4 p.m. the Duc d'Aiguillon ordered his troops to their respective garrisons, and leaving a small detachment of the *Régiment de Boulonnais* to superintend the burial of the dead by the local peasantry, himself withdrew to Lamballe.

14th September.—The British fleet, which had remained anchored in the Bay of St. Cast sailed this day leaving two frigates to watch St. Malo and to prevent the French frigates from following and interfering with the transports.

18th September.—The troops were this day disembarked at Spit-head.

The French struck a medal in celebration of their victory with the head of Louis XV, and on the reverse the figures of Mars and of a female representing Brittany, with the mottoes "*Virtus ducis et militum*" and "*Virtus nobilitatis et populi Arm*" (America, the Latin name of Brittany).

The centenary of this battle was celebrated under the Second Empire by the erection of a column on the heights overlooking the sand-dunes, the scene of the fight. This column carries the bronze figures of the Breton greyhound trampling on an English leopard!

D'Aubigny was promoted to be a Lieutenant-General.

The humanity of the victors deserves every praise: for it cannot be denied that the British had during their stay in the country been "guilty of many excesses." Le Masson gives a list of the damage done by parishes and individuals, which totals to well over half a million sterling, a much greater sum in those days than now. This damage was mostly that done by plunderers and was mere useless destruction. This was recognised by the remission of some five years taxation to the sufferers by the French Government as well as by considerable grants in money.

The cost of these three raids on the French coast was very great but they ended in useless failure because there was no definite provision of adequate means for landing heavy artillery and other requisite supplies, so that "the troops were landed without maps, without guides, and without any object in view except that of a marauding excursion."







The King's Speech that year had said—"The late success of His Ally in Germany had given a happy turn to his affairs, which it would be necessary to improve."

The British nation thought that this considerable force would "carry hostilities into the heart of France." Had they been sent to aid Duke Ferdinand of Brunswick, Frederick the Great's ill-fated campaign of 1759 might have been given an entirely different complexion. For an aggregate of 64 days these unfortunate British troops had been crammed on ships in the British channel, where their health suffered and their discipline disintegrated. Our politicians had not learnt the principle that the destruction of the enemy's main army in the field should be the object, and that side-shows detract from the attainment of that object. Have they even now learnt it?

One hundred and fifty-six years later, in September 1914, in very different circumstances, another British army was to land on the coasts of France.

# TRAINING AND STAFF DUTIES IN THE TERRITORIAL ARMY.

By

CAPT. M. WILSON, THE LOYAL REGIMENT.

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## *Introductory.*

1. It is proposed in tackling this subject, first of all to run through the present system of training in the Territorial Army and try to convey a connected view of the various parts of the machine ; secondly, to point out some of the many difficulties of the Territorial and try to appreciate his point of view ; and lastly to suggest a means of overcoming these difficulties.

2. First of all however, it is important to remember the purpose for which the Territorial Army exists. It is a purpose which is continually changing, and always in the direction of more responsibility. Before the Great War the Territorial force was solely a home defence force. After the war it was decided to make the Territorial Army, as it was then renamed, liable for service overseas ; but only in case of a war on a national scale involving the whole manpower of the nation. Mr. Winston Churchill, who was then Secretary of State for War, announced also that, in future, the Territorial Army would be the sole means of expansion of the army for war. In 1925 Sir Laming Worthington-Evans, who was then Secretary of State, went a step further and announced that, in future, the Territorial Army would be used not only in a war on a national scale involving the whole manpower of the nation, but also for any war of first class importance, and whenever the Regular Army and its reserves required to be supplemented.

3. Remembering how the Regular Army has been continuously reduced since the war, and the increased liabilities of the country, it seems probable that in future the Territorial Army will often have to be used for this purpose of supplementing the Regular Army. It is therefore now to be a real second line to the Regular Army, and if it is regarded in this light I think it will be agreed that all ranks of the Regular Army should do all in their power to help the Territorial Army to prepare for its great tasks.

*The Present System.*

1. *The machinery for training.*

Under the G. O. C.-in-C. of each Command at Home, except the Aldershot Command, there are two or more Territorial Army divisions. The divisional commanders, who are major-generals, have a G. S. O. 2 to assist them in training. Both the divisional commanders and their G. S. O. 2's may be territorial army officers possessing special qualifications, but at present there is none and all these posts are held by regular officers. The A. D. M. S., D. A. D. O. S., D. A. D. V. S., and C. R. E. are all Territorial Army officers, while the C. R. A. may be either a Regular or a Territorial Army officer with the necessary qualifications.

Next are the infantry brigades. Infantry brigade commanders are nearly all regular officers at present, but may be Territorial Army officers. They have no brigade majors, except during the annual training in camp. There is an exception to this in the case of the 2nd (London) Division, where two of the brigades have permanent regular brigade majors.

Battalion commanders are either Territorial Army or retired regular officers. They are assisted by a small permanent staff of regulars. The adjutant is a regular in most cases, and is appointed by the War Office, where a list of officers desirous of and recommended for the appointment is kept. The serjeant-instructors of the permanent staff are appointed by the Officer-in-Charge Records, usually from the regular battalion at home of the same regiment.

All administration connected with training matters goes through ; Territorial Army divisions to the County Association concerned while units correspond directly with the County Association, Officer-in-charge Records, and Command or Regimental Paymaster on most other administrative matters.

2. *How the machine works.*

The general principles of training are laid down in Territorial Army Regulations and Training and Manoeuvure Regulations. The gist of these is as follows :—

In the limited time available for training in the Territorial Army in peace it is not to be expected that as a whole it can be trained up to the standard of regular troops. The training should therefore be directed towards laying the foundations on which the more extended

training can be based later on, and should be confined wholly to such elements as are essential to success in war. The primary aim is to produce an efficient body of officers and N. C. O's to serve as leaders and instructors, and the secondary aim is to train the rank and file at first individually and then in small tactical units.

Training and Manoeuvre Regulations says that the system of training should be as far as possible the same as that laid down for the Regular Army, that is to say, the year is divided into two periods, namely, the individual and collective training periods. Programmes of training are to be prepared by all units and formations before the commencement of each period in the same way as is done in the Regular Army. and higher formations are to issue theirs in sufficient time to enable units to get their programmes out before each period begins. Training should be carried out continuously throughout the year, the groundwork of individual and section training being laid during the winter months with a view to the company and other collective training which follows in the summer.

During the individual training period training proceeds on the lines described, while divisional and brigade commanders devote special attention to the instruction of senior territorial officers in the art of command and in the best methods of instruction. During the collective training period, but before the commencement of the annual camp, every opportunity should be taken of training out of doors the sub-units such as sections and platoons. During the annual training in camp the bulk of the time should be allotted to company training. One day's battalion training may however take place towards the end of the camp, and this may be increased to two days at the discretion of the divisional commander.

If specially ordered by the G. O. C.-in-C. one day's brigade training may take place, but no divisional exercises are allowed to be held without the sanction of the War Office.

So much for the general principles on which the training machine works. Now let us take a glance at the functions of its chief parts.

The DIVISIONAL COMMANDERS, after consulting with the County Associations concerned, draws up his programme of training for the year and this he submits to the G. O. C.-in-C. of the Command by the 1st October. He also informs the G. O. C.-in-C. of the dates

and places most suitable for his division for any courses which the command may be able to organize within the limits of the funds available.

The BRIGADE COMMANDER is, of course, responsible for the training of the units in his brigade. Now the most important thing in the unit's training is the training of the officers, but most brigadiers, being regular soldiers, up till recently have not liked to interfere with units in this matter, since in the Regular Army this is looked upon as the peculiar sphere of commanding officers. Conditions in the Territorial Army are however quite different from those obtaining in the Regular Army, and the brigade should play a very much bigger part during the individual training season in this vital matter of the training of the officer.

The COMMANDING OFFICER'S chief duty is to train his officers. Now the average Territorial Army Commanding Officer has a business to look after and is usually a very busy man, and even if he has the ability to train his officers, very often has not the time to do it thoroughly.

It is not now compulsory for junior officers on joining to do a four weeks attachment at the dépôt of their regiment, as it used to be, and this makes the C. O.'s problem all the harder.

It has been suggested that what is required in the T. A. is a keen permanent brigade major, who could go round the units of the brigade and help the C. Os. to train their officers, umpire on field days, &c. Much of the officers' training might be organised on a brigade basis, and during the annual training in camp a Regular C. O. could be appointed to command the brigade.

THE COMPANY COMMANDER is responsible to the C. O. for the training of his company. The essential feature of all training is that it should be continuous and progressive, and it has been found that this can best be ensured by the adoption of the company system rather than the training cadre system of training.

THE ADJUTANT is responsible for the training of second-lieutenants in their duties, and for the preparation of all officers for examinations. The fact that outside courses have been organized does not absolve the adjutant of his responsibility in this respect.

THE SERGEANT-INSTRUCTORS of the permanent staff are responsible for instructing the officers and N.-C. Os. under the orders of the C. O. They are also responsible for supervising the instruction

given to the men, and in certain cases it may be necessary for them to undertake the instruction of recruits before they join their companies. The system to be aimed at however is that territorial officers and N. C. Os. should instruct their own men themselves as it is by this means only that they can acquire powers of command, leadership and instruction. There is always a tendency for the regular to do too much, as he can probably do it better and more quickly than the non-regular, and this tendency has to be continually guarded against.

### 3. How this affects the man.

During his first year the recruit has to perform forty drills, fire his weapon training course on the range and attend the annual camp. Drills are not all drill as their name would seem to imply, but periods each of one hours instruction. They may consist of drill, weapon training, section training, lectures, tactical exercises, &c. and the man may perform any number up to three on the same day. On joining he goes to a squad where he is taught sufficient drill to enable him to take his place in the section. He is then posted to a section and from that time on all his training takes place under his own section and platoon commanders. Under these he is taught about his weapons, fires his course on the range, does section, &c. training.

All this preliminary training should be finished before the unit goes to camp so that the maximum benefit may be obtained from it. The annual training in camp consists of from eight to fourteen days training between May and September, usually in August. The troops have to do six hours training a day while in camp.

In subsequent years the soldier has to do only twenty drills in addition to his musketry course and the camp in order to qualify for proficiency grant.

### *The Difficulties of the Territorial.*

The chief difficulties in the way of training the T. A. are :—

- (a) The difficulty of limited time.
  - (b) The difficulty of suitable trainers.
  - (c) The difficulty of suitable training accommodation.
- (a) *Time.*

The time available for training is strictly limited. During his four years service the man has only to do from seventy to one hundred hours instructions, excluding the annual camp and time spent on the

range courses. If this is compared with the number of hours worked by a regular recruit before he is sent to join his regiment, it will be seen that a totally different allotment of hours and programme of training must be adopted for the T. A. and this programme must be very carefully worked out if time is not to be wasted. We must concentrate on essentials. T. A. Regulations says "the training should therefore be confined wholly to such elements as are essential to success in war." Now what are these essentials?

In the infantry soldier they are :—

- (1) The ability to use a weapon under battle conditions.
- (2) The ability to use ground to enable him to close with his enemy and gain cover from his fire.
- (3) The acquisition of discipline.

If the soldier is well grounded in these elements before mobilization, it should not take long after mobilization to add the necessary frills. In the leader the essentials are rather more numerous. In addition to those already mentioned it is necessary to teach him how to command, and we can only do this by giving him practice in command. We must teach him also tactics so that he will be able to lead his men to the best advantage in battle ; and we must teach him how to teach. If he does not know how to teach, he will waste a lot of time, he will not have the necessary kit ready before the lesson begins, he will not have the lesson mapped out properly and will find that when time is up he has probably only got half way through what he set out to teach.

Time is also very often wasted by irregularity in attendance. This applies particularly in the training of specialists. The kind of thing that happens is that one night some men attend. The next night perhaps half of those who attended the previous evening, and several who were not there before attend. The result is that the instructor has to keep going back continually to bring up to date those who missed the previous lesson. This of course wastes the time of those who attended regularly and greatly complicates the task of the instructor. It is a very serious problem in the T. A. and a very difficult one to overcome, but it can be greatly minimized by good organization and forethought.

Time is wasted also by instructing under unsuitable conditions. Imagine a drill hall in the centre of which there is a squad of recruits doing arms drill under a conscientious but very noisy instructor.



At each end of the hall there is a group of signallers trying to get into communication with each other while their view is constantly interrupted by the evolutions of the squad in the middle. In one corner there is a machine gun section commander trying to instil the mysteries of the Vickers gun into his section whose attention is continually distracted by the noise and movement. This is quite an average situation.

Time again is wasted in repeating things too often in an endeavour to reach perfection which cannot possibly be attained in the time available. Short cuts must be adopted and a framework laid on which improvement will come naturally later during other work.

(b) *Trainers.*

It is of the utmost importance that the right type of regular officer should be appointed for duty with the T. A. Adjutants who seek a quiet life are not at all what is wanted. The adjutant is an immensely important person. He should be an able lecturer, able to conduct tactical exercises on the ground and on the sand model with confidence and ability. He should be a good organizer and a man of the world as he will have many dealings with civilians and employers of labour, and he must possess tact and enthusiasm. Personal influence is everything with non-regulars as the statutory periods of training are never sufficient. If their confidence and goodwill is really gained there is very little they will not do for their officers.

Unfortunately there is an undue proportion of unsuitable serjeant-instructors at present. The position is being slowly remedied, but there should be just as little chance of finding a bad instructor with the T. A. as there is of finding one at Hythe or Netheravon.

(c) *Training accommodation.*

Some units are very scattered, having their headquarters in the town and several small detachments in outstations. In many cases the drill halls are antiquated buildings in a bad state of repair, while the outstations have only an old army hut as their headquarters. The provision of up-to-date accommodation is an urgent necessity as this has a direct bearing on recruiting. Drill halls should be well cared for and well lit. They should be provided with a good institute which the men can regard as their club, and generally have the air of being

alive. In these days of rigid economy the difficulty is usually finance. Some suggestions put forward for overcoming this difficulty are :—

- (1) Do away with the outstations, concentrate on the drill hall in the town, and with the saving bring in the men from the surrounding districts by the excellent motor bus services which now cover the country.
- (2) Sell the drill halls in the towns which probably occupy valuable sites, and with the proceeds purchase or hire a training area outside the town and erect there a small standing camp. This would overcome a great many of the training difficulties in certain units.

With regard to training areas for the annual camp, it is sheer waste of time and money to hold a camp at all unless there is adequate suitable land available for training. Where, however, the area is limited it is far better to divide up a brigade area into two instead of dividing it up equally between the four battalions of the brigade. Then two battalions will have the use of a reasonably good area while the other two do training on roads such as advanced guard schemes, &c. Next day they can change round. They will get far better value from this than each having a piece of land every day where manoeuvre is impossible.

#### *The Territorial's point of view.*

The Territorial of the present day is a good type. C. Os. are going in now more for quality than for quantity, and many C. Os. will only enlist recruits after a period of probation. The result is a better class of recruit although they are slightly fewer.

Having chosen voluntarily to sacrifice his annual holiday and many other leisure hours, the recruit has laid unwittingly the foundations of the highest form of discipline, and this fact should not be forgotten in dealing with Territorials.

The average Territorial realises what a very short time is available for him to learn all the things he requires to know, and this makes him impatient of the stereotyped methods used in the Regular Army. He cannot afford the time to do things by numbers, but requires to have the principle of the thing explained to him so that he will be able to understand what comes next. Rapid methods and short cuts embracing only the bare essentials and cutting out all the meticulous detail are what is required. For this reason such things as drill

should not be overdone. Drill is very valuable and a very important means of securing discipline, but the Territorial simply cannot spare the time to become a drill expert, nor indeed any other sort of expert if he is to cover the ground. Drill and discipline will come naturally during instruction in other subjects, *e.g.*, moving off to the morning's work from the parade ground in camp.

The change which took place in the drill and bearing of the 164th Infantry Brigade at Holyhead in 1927 was very noticable during the fortnight they were there. Towards the end of the camp a brigade church parade was held after which the brigade was inspected by, and marched past, the divisional commander. He complimented all ranks very highly and it was almost impossible to recognise in them the same troops who had marched in a fortnight earlier. And they had had no drill at all as such except a platoon drill competition on one afternoon.

The Territorial is very keen on tactics and has a strong imagination, far stronger than that of his regular brother, who spends most of his time on manoeuvres wondering when the No Parade is going to sound, and how far he has to march back to camp. It would be a great pity to kill this keenness with too much initial drudgery.

The Territorial answers readily to sympathy and tact, has a strong sense of duty and will do anything readily if treated in the right spirit. This is not to say that he likes sloppiness, because he certainly does not, but expects Regular officers to be models of precision and smartness, and would be terribly disappointed if they did not bark and, on occasions, bite.

Of course what is wanted for war is an unhesitating obedience to orders, although at the time they may seem unreasonable; but everything cannot be taught in a short time and we must realise in our dealings with Territorials in peace that discipline with a big D cannot be expected. The foundations however are there, and on mobilization it should not take very long before the building is completed.

*A suggested solution.*

A suggested solution to the training problem will be found in the appendix, in the form of an outline training programme for the year. The old idea was to have two drill nights a week throughout the year, and men could attend whenever they liked. Some units still do this and they get nowhere. The new idea is to divide up the year into

definite periods having a definite object for each period. This system ensures much greater regularity in attendance, since the opportunities are limited, it ensures unity of effort and progressive training. It is realised that this particular programme would not suit all units since different units are differently circumstanced, but it will serve to convey the idea.

*Conclusion.*

To sum up : first of all imagination and forethought must be used in order to make training interesting. If they are not then the leaders will not work overtime, and the primary object which is to provide an efficient body of leaders and specialists will not be attained. Secondly, regulars must do more to help. Depôts now have a definite responsibility in this matter of assistance and are doing a lot of good work, but regular battalions at home might do still more. They might send more personnel to assist at the Territorial Army camps, they might lend equipment where practicable, they might invite Territorial Army officers to stay with them whenever possible, they might visit their territorial battalions more often, &c. The chief thing is to get the C. Os. of the regular battalions interested and then everything will be easy. Interchanges and visits are very much appreciated by Territorials, and it is unnecessary to stress how much they increase efficiency and *esprit de corps*.

Recently, not only in military magazines, but in newspapers both at home and in India, there has been a number of very good articles on the purpose and importance of the Territorial Army. This shows that the country is at last waking up to the necessity for a strong and efficient T. A.

In conclusion it is emphasized that it is the duty of all regular officers who see this necessity to do all that lies in their power to help the Territorial Army along the road to efficiency. With this end in view, therefore, they should lose no opportunity to study the Territorial Army in general, and the man in particular; to try to get an intimate knowledge of his many difficulties and look at things from his point of view.

## APPENDIX.

### A SUGGESTED PROGRAMME OF TRAINING.

Sept.—Jany. All training except that of leaders closed down. During this period officers and N.-C. Os. have week-end T. E. W. Ts. organized by the unit and higher formations ; sand model exercises ; lectures, and demonstrations by depôt staffs ; correspondence courses for officers and perhaps senior N.-C. Os. on tactics and military technique such as writing of orders, &c. The latter might be run by Divisions or preferably higher formations or by the War Office if it could be persuaded. These could be worked out at home in spare time.

During January the adjutant, possibly with the assistance of the depôt, might run a brushing up course for the permanent staff instructors. This is badly required by many P. S. I's.

Feby. Preliminary training of recruits. During this period all N.-C. Os., and P. S. I's available to take recruits in squad drill. The recruits should be required to put in at least ten drills during this month, and this by limiting the opportunities available would ensure a good proportion of recruits attending each evening. I consider that ten drills should be sufficient to give a recruit enough training to allow him to take his place in his section.

March During this month a weapon training course under the adjutant should be organized for N.-C. Os. and junior officers. No drills this month except for specialists.

April Tests of elementary training. Object: preparation for the annual course. All ranks to qualify and pass the Empire Test. (See S. A. T. Vol. II, Table A, Appendix I).

- May**            Annual range courses to be fired. Four week-end camps required.
- June-July**    Object: preparation for annual camp. During this period section and platoon training to be carried out, either by means of week-end camps or by excursions into the country in charabancs.
- August**       Annual camp. Everything should have been worked out before hand in order that no time is wasted in camp. C. Os. and adjutants would have attended a divisional exercise there, would have reconnoitred the ground and areas, would have been allotted to units on certain days. If possible company commanders would also have been over the ground and all schemes would have drawn up so that the maximum value could be got out of the camp.

ACCOUNT BY AN EYE-WITNESS OF THE TAKING OF THE  
DELHI PALACE ON THE 20<sup>TH</sup> SEPTEMBER 1857.

*Extracts from letters from the late Lt.-Genl. F. C. Maisey, Indian Army, who at that time was a Captain and Deputy Judge Advocate General of the Delhi Field Force. The letters were addressed to his mother and sisters in Switzerland, and are dated 30th July 1858. Simla. Vol. 2.*

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I left off last time with the Capture of the Magazine, and the gradual extension of our line of posts on the 17th September. Of course, as our front advanced, our main position became more quiet and secure, and by this time, save for occasional cannon shot, we were little disturbed at Skinner's House. We had got clothes and servants down from Camp too, and were pretty comfortable. I cannot say we were very often there though, for there was always something going on somewhere, and it was impossible to sit still. I too had my Provost Marshal's work to attend to as well, so there was very little rest for me.

On the 18th, before we were up, an attack was made from our post at the Kabul Gate on the Burn Bastion, the possession of which involved that of the Lahore Gate. The attack was, I suspect, hurried and injudicious, and the troops were not so forward as could have been wished. In fact they had hardly got over the effect of the two days' disorder after the assault. At all events, be the blame whose it may, the attack failed. I can give no details as I was not there. A good many casualties occurred, and among them one officer, Lieutenant Briscoe of the 75th, killed. I saw his body being carried towards Cantonments, and several wounded men after it, as I was riding out towards Cantonments to see some of the wounded officers at the Field Hospital, and it was not till then that I knew that any attack had been made.

On the 19th the Bank and the adjoining houses were taken with small loss and occupied in force, the enemy being driven to the buildings on the far side of the Chandnee Chowk, whence a rattling

fire of musketry was kept up incessantly, and replied to by our men. Small mortars were placed in the Bank compound, and troops were massed in the vicinity ready to meet any attack in force.

Several of us visited the newly captured Bank and its outlying posts, and tested the warmth of the musketry fire in person, but Brigadier Jones, 60th Rifles, who commanded, got very crusty and discountenanced our wandering about, as he said that officers moving about brought down a heavier fire and his men suffered from it, so of course we made ourselves scarce. Indeed we were not over anxious to stay after once seeing the position sufficiently to be able to describe it to the General, for the risk was considerable.

The Burn Bastion was again attacked in the evening and captured this time and made into a strong post.

On the 20th I went early with Colonel, now Brigadier Seaton to the posts in advance of the Bank, and we reconnoitred together along the dry bed of the canal, as far as where the road towards the Calcutta, or Water Gate crosses it.

We were fired at by some distant concealed marksman (who was luckily a bad shot) but we saw no one, and, as far as we could make out, the Water Gate was abandoned. We came back and suggested that a party should be sent to occupy it, as it commanded the road to the bridge of boats, and gave access to one way of approach to the Selimgurh, *viz.*, the River-Wicket. However, on reaching headquarters, we found that arrangements were being made for storming the palace, so of course all interest merged in that, as with the fall of the palace, everything would be ours—Selimgurh and all.

After breakfast down we went again, with several others, and found preparations making for blowing in the huge gates. Colonel Jones had, meanwhile, taken and spiked some guns in the open space, in front of the palace entrance, and posted his men in two parties under cover, ready to storm after the explosion. Picked men were placed to cover the approach of the explosion party. Dropping shots came at intervals from the Palace walls, but it was very evident that its defenders were not very numerous, however desperate they might be.

After an interval of suspense all was arranged, and the powder bags blew up with a tremendous explosion. Half of the huge gate



fell heavily over, then with a shout, on we all went, officers, sappers, Europeans, natives, all pell mell, and with a want of order which, had there been any steady resistance, would have made a terrible mess. I tried to get one or two officers to get their men into something like order—but—phew! away they all scampered, and all I, or anyone else, could do was to scamper also!

There was some brisk musketry firing in the arched passage leading into the first courtyard, and sundry *Pandies*, who were idiotic enough to show fight, were slain. There was more danger from our own bullets than from theirs, so we were glad to get out of the passage and into the open. We then separated, one party going to the left, one straight on, and one to the right to seize the Delhi gate of the palace.

I went to the left as that was the way towards Selimgurh, which I thought our party might have the luck to take. Someone said too that the King was in that direction, and who could resist the chance of capturing him?

Captain Salt of the Artillery and I led the party, accompanied by an Afghan Sirdar, yeleft Meer Khan, who had all along aided our side with a small body of *very* irregular horse.

Such a handsome black-bearded, eagle-eyed fellow, and so excited at the thought of catching the King (whom he would most infallibly have killed). We went plunging along through several gateways and narrow streets—for you must understand that there is a complete town within the palace walls. We expected every moment to meet with a volley, and rather wondered what the confused crowd at our heels would do when it was fired on.

We passed the place where the hapless girls (Miss Jennings and Miss Clifford) were murdered, and it did not lessen our excitement you may well believe.

We only saw two men on our route—both of whom our Afghan friend fired at and dropped like partridges. They were armed, so it served them right.

After a little while, hearing firing and a great hullabaloo in the centre of the Palace enclosure, we decided on joining the centre party, the more especially as we had found that there was no chance of our running the King to earth in our direction. We found the party,

men, officers and horses, all jumbled together, brought to a standstill by huge metal-studded gates strongly padlocked. What with bangs with heavy beams, shots from muskets, and other violent measures, the gates were forced, and, then, with a rush, we went pellmell into the central square of the palace, at the far side of which is the *Dewan-i-am* or public hall of audience. The Court was full of looted carriages, buggies, carts, palanquins, etc. A gun or two were there, evidently hastily abandoned. Such a scene!

On we pressed to the *Dewan-i-am*, which we found had been made into a sort of barrack. There were some twelve or fifteen sick and wounded men there at whom the troops sorely wanted to fly—for I must say that the atmosphere of that hotbed of treason and murder set one's pity in a very distant flight. However, the officers held the men in check, and we began to question the fellows. One young Mussulman, evidently very ill, was close to me, and I asked him where the troops were, and where was the King. At that word a storm of voices repeated it in anything but regal language.

The man begged for his life, and I told him I would protect him if he could come with me, on condition that he disclosed where the King was, and I told this to the officers and men. He declared that the King and his wife and younger sons were in the private apartments which were in the next or innermost court. The rascal lied. The King had gone days before and he knew it well. However, we believed him then.

A shout was raised to search the next court. Just then up came Black Beard, and no sooner did he see the *Pandies* than he flew at them with his men. No one could stop him, and indeed I do not think the men wished to. As to the officers such was the crash and confusion and row that we scarcely knew what was going on, and we were quite powerless even had we known.

A few screams and groans told the tale. I left the man I had spoken to alive and under the care of some privates, for I could not stay there when all were rushing ahead, but he too was afterwards killed. I heard that out of the twelve or fifteen men, Meer Khan had himself killed eight. I never saw such a bloodthirsty savaga.

I forgot to tell you that, while we were on our exploring trip to the left, I caught hold of a man who peeped out of a doorway and made

him come along by my side. He was not armed and appeared to be a bullock driver. I told him if he would stay near me and show us the way and give good information, I would see that he came to no harm, but my guarantees that day were worthless. My Afghan friend was at my heels. I told him that the old fellow was my prisoner and that I had promised him that he should not be hurt. The man rubbed his head on the ground and thanked me as well as his fright would allow him. The poor wretch ran along by my side pointing out the way. We had scarcely gone ten yards when I felt a whiz and a flash, and down fell my prisoner shot through the body. That rascally Afghan had shot him, and almost set me alight in doing so. I was very angry and let him see it, but of course there was nothing to be done, besides the Sirdar was quite independent of me, and could not understand why a promise made to a *budmash* caught in the enemy's stronghold, should be binding.

Well, I pulled up just as we were making a rush for the inner Court. How we got in, whether by unlocking or forcing the gate, I cannot tell, but in we rushed and found ourselves in a large quadrangle with colonades on three sides, topped by the domes of Mosques, and the lattice windows of Pavilions, and, fronting us on the river bank the marble Hall of Private Audience—the *Dewan Khas* from one end of which passages led to the private rooms, baths, etc., of the Court. It was a pretty sight, that marble hall with its Moorish arches, its gilding and tracery and rich red and green curtains—and the deep blue sky behind and over it—and the courtyard filled with a crowd of troops of all arms—but we had no time for enjoying the picturesque, the cry was still “The King! The King!” and soon the armed heel and the ring of weapons clashed through the cloistered precincts of the *Dewan Khas* and into the still more exclusive chambers, where never before had English foot trodden—the private rooms of the Moghul Emperors, the bowers of Noor Mahul and odalisques unnumbered, store rooms, pantries, lobbies, baths, all were ransacked by the outside Barbarian, without any thought at first but that of discovering the King and his family. But we soon found that “the cupboard was bare,” and then the genius of plunder arose and such a scene ensued as I fancy has never yet been equalled. A motley crowd of troops and followers ransacking every hole and corner, turning everything topsy-turvy (themselves inclusive very often) in the search for loot. Muskets were being fired right and left to force

the locks of doors. As the men got more and more scattered the bullets flew more and more wildly and the risk was considerable. I never saw such confusion. All sorts of loot had been brought into the Palace by the mutineers, and presented to the King and Members of the Court, and this and the palace furniture, men's and women's clothing, dancing girls' frippery, vessels of food and drink, rich hangings and trappings, books and manuscripts had all been tumbled higgledy piggledy into the various small rooms about, and were all re-tumbled and tossed over and over again by an excited soldiery. Here you saw a group fumbling among mysterious boxes in search of jewels, there others laden with stuffs of various kinds—pictures, books, guns, pistols, anything that took their fancy. Some tried the sweet-meats and *sherbets*, others less lucky, took long deep draughts of what seemed some right royal drink, and, alas, turned out medicine, and found out, too late, that the old King had a passion for pharmacy, and kept large supplies close to his royal elbow. We did not find a soul in the private apartments, and, as to the plunder, the greater part was the merest trash, and there was nothing whatever of any value. I picked up in the King's private pavilion a perfectly new air cushion which Kate now has in her *Jampan* or hill litter. That was the only thing I looted at Delhi, for the order about plunder were so strong that I would have cut my hand off sooner than take anything. This little souvenir, however, I was determined to keep, and I told the Prize Agents so! The men at last began to quiet down from sheer fatigue and were collected by the officers. A deputation was sent to report the capture of the Palace to the General.

The party that went to the right had meanwhile occupied the Delhi Gate of the Palace, killing two or three men *en route*, and two or three at the Gate itself, who were insane enough to resist. The Delhi Gate of the *City* was also occupied about the same time, and every remaining bastion and gate taken with trifling loss, and guarded.

We found ourselves masters of the *whole* of Delhi, Palace, City suburbs, Selimgurh and all. In the whole day our casualties did not, I believe, exceed seven or eight wounded. The city and the huge camp outside had almost, in an instant, been evacuated by the rebel troops who had gone no one knew where. All that remained were non-combatants women and children, who were turned out by order.

The final capture of Delhi took place on Sunday. I wonder how many remembered it at the time and thought of gratitude to the God of Battles who had given us such wondrous success in so short a space and saved India through us. Now came a *great* mistake, one that has characterized all our operations in the late campaign.

We did not press the flying enemy. They got off, laden with plunder, scot free. The pursuing columns did not start till the 24th and 26th when Greathed's and Showers' columns moved towards Agra and the country round Delhi respectively.

On the 21st the staff moved their quarters to the *Dewan Khas* that "Paradise on Earth" according to its gilt Persian inscription.

اگر فردوس بر روزمیں است  
 ہمیں است و ہمیں و ہمیں است

The words as spelt in Roman letters are:—

Agar Firdos bar ru i zamin ast.

Hamin ast, o hamin o hamin ast.

If Paradise is anywhere on earth

'Tis here, 'tis here, 'tis here!

I wonder what the *genus loci* thought of the dinner we had that Monday evening?

I wonder what it thought of the toasts "The Queen, God bless her!" and the "General"?

That day was chiefly taken up in getting settled in our new quarters, and roaming about over the Palace and City, and so I may say was the next day the 22nd September, with of course a little work now and then.

On that evening the King, Zinatmahal, his favourite Queen, and their two sons, Jiwan Bakht and Shah Bash, aged sixteen and nine respectively, were brought in prisoners, accompanied by the Court Physician and minister Hakim Ahsan Ullah Khan, and several servants.

All the stories that have appeared about the *Capture* of the King are so much "bosh." It was all an arranged thing under the advice of the Hakeem. One of the Royal family (Mirza Illahi Bakhsh) came to our Meer Moonshee or native head of the Intelligence Department,

named Rajab Ali, a precious scoundrel, but clever and useful, as an emissary at the instigation of the Hakeem and of the Begum Zinat-mahal and said that the King wanted to surrender himself, and that he was at a *Durgah*, or shrine, about five miles off. Rajab Ali went with some native cavalry to the place Nizam ud-Deen *Durgah*.

They were fired at on the road by some fanatics, and I believe a man was wounded, but it was through a misconception and all was explained after considerable palaver, the King and Begum trying to get all sorts of pledges out of the astute Munshi. It was decided, as indeed it had been some time before, on Captain Hodson's authority, that the lives of the King, Begum and the two young sons should be guaranteed and that all else should be left to future arrangements. On this understanding the old rascal and his small suite proceeded under Rajab Ali's escort to Delhi.

Hodson, who had been on some exploring expedition with some cavalry, heard what had happened and met the Cavalcade as it approached the city. He galloped to the Palace to tell General Wilson, who, as far as I could judge, was in a most tremendous rage at the King being brought in alive. I was close by, but the conversation was not very loud. However, it seemed to me, at the time, that the news was far from welcome, which made me doubt all along the assertion that General Wilson had guaranteed the King's life. Well, the prisoners were lodged for a time at Zinatmahal's private house in the Lalkona Street, and were subsequently removed into the Palace.

A strong guard was kept up, but they were treated with as much leniency as was consistent with security : allowed their own personal attendants and perfect privacy, save periodical visits from the officer on guard. All the stories that have been circulated of either successive rigour or absurd respect and leniency are utterly untrue.

I went to see the King the morning after 23rd in company with the head civilian officer, Mr. Saunders, Captain Garstin and I think Captain Stewart. We found him quite cheerful with his *hookah*, his inseparable companion, and his velvet scabbarded sword. The latter we divested him of, at which he remonstrated in a rather childish and querulous way. The only other remarks he made were about his food and lodging, and a request that the Anglo-Saxons of his guard might be requested to leave him a little more in private, which was of course attended to. No wonder they came to stare a little at the last.

of the Moghuls, and it was a strangely interesting sight, to see that old bent man, the heir of so much traditional glory, brought to so low an ebb in his own Imperial City. Connected as he was with such fearful events, I must confess that the sight of his aristocratic features and his feebleness made me feel more pity than anything else, but, ever and anon, there was a cold dull glitter in his dim eyes, that raised another feeling, telling as it did that he was heir to the ferocity and guile of his ancestors, as well as their titles, and justifying the belief that in spite of his infirmity and his asserted innocence, he had, as was darkly hinted, and has since been proved, been a party to and witness of foul murders of English men, women and little children. There was no temptation to look much at him, and I never went again. I was going to make his portrait, but had not time; but, just before I left, I got the loan of a very good sketch by a Lieutenant Butter, which I copied, slightly altering the face to increase the likeness.

On this afternoon Captain Hodson got news of the presence at the Tomb of the Emperor Humayun, of two sons and a grandson of the King, *viz.*, Mirza Moghul, the rebel Commander-in-Chief, Mirza Khizr Sultan, Commandant of an Infantry Corps, and the grandson (son of the deceased heir apparent or Waliahad) Mirza Abu Bakr, General of Cavalry. Hodson took out two of his officers, Lieutenants McDowell and Ward, I think, and a troop of his men, rode up to the Tomb and summoned the Princes to come out, which they did at once, evidently encouraged by the news of the King's reception. They got into covered carts and were driven off. Not a hand was raised to save them, though there was a large crowd about the place, which, had the least signal been given, could have rescued them and annihilated Hodson's band. But the fact is the Princes wanted to come in. They could have escaped at their ease had they chosen, and could have called forth hundreds of fanatic defenders then and there, but they had no fear of anything more than "durance vile," a prospect which was to them a positive relief. When at last they neared the City, they did, it is true, see that they were taken to their death, but then, rescue, even if attempted, must have failed. The chance was gone and Hodson had gained his points.

As soon as they got near the City Gates they were made to dismount, their arms taken, and they were shot like the dogs they had

proved themselves to be, and their bodies were afterwards exposed for two days at the Kotwallee (police station), the scene of some of the murders of Christians. I saw them there lying stark and stiff, and I must say I was glad to see them, for of their guilt there never was a doubt, and I really believe the King was, to a great extent, a puppet in their hands.

In the evening a number of Pandies (mutineers) were hunted up in the bye-lanes of the City and killed. They had attacked our working parties of Sappers, and Major Brind of the Artillery, took a body of troops and unkennelled them.

My duties as Provost Marshal had ceased on the entire capture of the place, and I had only my own legitimate work, which had accumulated during the Siege.

There was a great deal of plunder going on all over the city in which many officers, I am sorry to say, joined, and, as I could never have stopped it, I was very glad to have washed my hands of it altogether.

My time was spent in working, drawing, writing letters and journals, and sightseeing. I soon began to get dreadfully tired of the humdrum life after the high excitement of the Siege. On the 24th a strong column under Colonel Greathed started towards Oudh. On the 26th another column under Brigadier Showers started to beat up the neighbourhood of the Kootub. They returned a few days after and then went out again towards the district of Rewaree. They took Jhuggur and several other important places, many guns and a tremendous lot of plunder, which government added, with great delicacy, to the Delhi Prize Fund.

At Delhi itself the next event of note was on Sunday the 27th when we had a special Thanksgiving Service in the Dewán Khás, the reading desk on the very spot where the King used to sit in audience, and whence, no doubt, many an order had been issued to root out and slay the hated Christians. Messrs. Ellis and Rotton were the two officiating clergymen, and the service was very impressive and interesting.

Late that night, just after we had all turned into bed and were listening to the ripple of the Jumna which washed the walls just below us—our invariable lullaby then, instead of the roar of guns and rattle



of musketry—a very heated officer of Hodson's Horse rode in from the camp at the Kootub and reported that he had brought in two of the King's sons prisoners, Mirzas Bakhtawar Shah, Colonel of the 11th N. I., and Mendhu or Sohrab-i-Hindi, Colonel of the 74th N. I. Two other sons were also captured at the same time, Mirzas Abdoola and Khwayash I believe, but, by some extraordinary neglect, they were suffered to escape.

Old General Wilson was excessively indignant at being roused up on account of two wretched Shahzadehs (princes), so I asked him if I should see to the prisoners, and off I went to announce their arrival to the Commandant of the Palace, Col. J. Jones, 60th Rifles. We had them lodged for the night under a guard of the Rifles. They were low insignificant looking fellows with not a trace of blood about them, and they were, as you can imagine, in a most terrible fright.

On the 28th we heard the firing of the fight at Bulandshahar of which you saw all the details. I could tell you plenty of little secrets about that, but I must stick close to Delhi.

The City was, as I have told you, being rapidly emptied every day, and the Prize Agents were constantly at work collecting plunder and treasure. Suspicious characters were being seized and tried by military Commission. The bodies of men and horses were gradually being cleared away, ammunition and stores and guns being collected and parked, and justice being established.

I was very busy examining papers and witnesses preparatory to the trial of the two Princes, at which I was to be Government Prosecutor. On the 1st October General Wilson and all the staff dined with the 60th Rifles in their Extempore Mess House, a fine marble hall, something like the Dewán Khás in the centre of the Private Gardens.

Of course we were very jovial and of course there was the usual dose of bad speeches!

On the 5th we began the trial of the two Princes for rebellion and aiding and abetting the same, etc. I had to address the Court and conduct the proceedings which I did with a judicious blending of Burke and Mansfield!

In the evening I bought a carriage for Kate at one of the prize auctions, selling my buggy and mare at the same time. I got a very

nice double britzka for Rs. 360, about £ 36. And, as the sale of my buggy more than covered it, it was very "bon marché." The carriage I got for Rs. 360 was worth at least Rs. 800 or more.

We completed the state trial the next day. The case was clear and the evidence overwhelming. They were sentenced to die as traitors and so ended that affair, which, with the exception of mere routine work, was my last official act at Delhi.

On the 10th after I had taken in the fair copy of the Princes' trial for General Penny's signature (he had taken command on General Wilson going on leave), I had a great fight with him, Brigadier Chamberlain and Mr. Saunders about the King's trial. They wanted me to undertake that, and the General was very nearly ordering me to do it. I was by no means anxious to spend several months more at Delhi and represented that the evidence was as yet far from complete, that the orders of Government ought to be taken etc., etc., and moreover, if the King was to be tried at once, the proper officer to conduct the trial was General Penny's *own* Judge Advocate, Major Harriott, my senior, who was hourly expected from Meerut to relieve me, so as to enable me to return to my own office at Umballa. At last the old General laughed and said "Ah, I see how it is, we must let you get back to Mrs. Maisey, and I think you have earned your release."

Major Harriott arrived on the 13th October, and I made over all the work connected with Delhi to him, and danced a dance of triumph over my packed up boxes.

Before leaving I had to report on the case of a Sergeant Major Gordon of the 28th N. I., who escaped the Shahjehanpore massacre, and was brought to Delhi by the sepoys. He had been well treated all the time though a prisoner. He gave himself up to a Cavalry patrol in the Rebel Camp near the Jail.

After the capture of the city it was proposed to bring him to trial for aiding and abetting the rebels, as it was reported that he had manned their guns, and the feeling against him was very violent. But, on a quiet examination, the evidence proved quite worthless. The man's own story seemed indisputable.

I strongly deprecated his trial on so heinous a charge, as there was no proof even supposing he was guilty. On the other hand there

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was every probability that he had been a strict prisoner throughout, so the poor fellow got off trial. He was, however, not released but the matter was reported to the Commander-in-Chief. What the final result was I do not know.

On the 14th October I started, at five p.m. by the mail cart from Delhi "homeward bound".      **Finis.**

(Sd.) **FRED MAISEY.**

# MECHANIZATION, HOW FAR IS IT POSSIBLE AND DESIRABLE IN THE IMPERIAL ARMY.

By  
CAPTAIN G. B. I. NOKES, I.A.S.C.]

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The British Empire extends to the four comers of the globe, and the British soldier may be called upon to fight in widely different countries and under widely varying conditions.

It is for this reason that our policy as regards mechanization must be to some extent a conservative one.

Machines that would be excellent for warfare in the plains of Flanders, would be useless in the West African Bush or amongst the rocky hills of Afghanistan.

Our standing army has to be prepared to undertake aggressive or protective measures in any part of the world, and under varying conditions, and herein lies one of our chief difficulties in the mechanization of our army.

Another difficulty is the financial one. Nothing can be achieved without experiment and experimenting is a very costly process. Mechanical vehicles are expensive luxuries, they quickly wear out and very quickly become out of date.

Unfortunately the policy of the Government in taxing in the United Kingdom motor vehicles according to their Horse Power has not made the problem of mechanization any easier. The H. P. tax has fostered the design and manufacture of light vehicles of low H. P. which are eminently suited to the very excellent roads now existing in England but a very light low H. P. vehicle is quite unsuited to army purposes. What is required for the army is a very strongly made, powerful vehicle, capable of traversing the worst of roads and, if necessary, passing over country where roads do not exist.

Subsidy schemes exist, both at home and in India, to induce the commercial user of mechanical vehicles to employ a type of lorry that will be useful to the army in war, but so far the subsidy schemes have not met with any great measure of success.

The reason is not far to seek. The type the army require is *not* an economical type for the commercial user, and even with the subsidy, the merchant or carrier is often better off with the economical type of vehicle that best suits his needs.

We must now turn to the next point in this problem of mechanization. Supposing money to be available sufficient to produce all the A. F. V's. required to mechanize the army, how far would complete mechanization be desirable, and what type or types of vehicles would be suitable?

Broadly speaking, *mechanization has today reached the point where mechanical vehicles (wheel or track) can traverse any country passable to animal drawn wheeled vehicles.* but no mechanical contrivance has yet been invented that can take the place of animal pack transport. Until some form of mechanical pack animal is invented mechanization on an Empire-wide basis cannot advance much further than its present position.

Cross country mechanical vehicles have very real advantages over animal drawn vehicles, both as to superiority of speed and as to load carried. Undoubtedly a nation equipped with a sufficiency of these vehicles would have a very great advantage over an enemy not so well equipped.

It is here that England should take advantage of her great industrial resources. As one of the greatest manufacturing countries in the world we have a very great advantage over less industrialised countries, and if only our manufacturers can be guided in peace time to produce *and sell* the type of vehicle required by the army, we shall be in a strong position to reap the fruits of this advantage to the full in time of war.

Our next step is to consider how far a mechanized force of A. F. V's. (ignoring for the moment the mechanical transport of the force) will be superior tactically and strategically to a force not so equipped.

In the first place surprise will be very difficult to attain, due to the noise of the engine, smoke of the exhaust, marks of the track and distinctive appearance and size of the vehicles, but these disadvantages are in some measure out-balanced by the increased possibility of making night marches and long detours.

It appears that A. F. V's. will have to rely more on their speed than their armour, as armour-piercing bullets and anti-tank guns are already in existence, and it would seem that speed of manœuvre can alone save these vehicles from destruction.

Once an infantry battle is launched, it is very difficult to control. To control a force of mechanical vehicles moving at, say, four times the speed of infantry will be more difficult still, unless some reliable form of control from the air is introduced.

All mechanical vehicles are still very liable to breakdown, more especially under the strain of active service conditions, and I am of the opinion that after one month's continuous fighting over bad country such as was met in Flanders during the great war, fully 75 per cent. of the A. F. V's. will be out of action. It is then that a country that has not put all its resources into mechanization, and has a well equipped, well trained force of cavalry and infantry, will reap the advantage of not having gone "Mechanization mad."

It is still the human factor that will count in war, and it is the fear of cold steel that will still win battles. It has been mooted that the supply of petrol to the enormous number of vehicles in a mechanized force will prove a well nigh impossible problem. In a mechanized force the number of men and animals will be considerably less than in a non-mechanized force. During the Great War men and animals were plentifully supplied with food and fodder, so there appears to be no reason why large quantities of petrol should not be handled.

Petrol is far less bulky than fodder. Petrol railheads would doubtless be installed, and petrol brought to rail-head in railway tank wagons by full train loads.

From Petrol Rail-heads it would be pumped into tank lorries and, from these, A. F. V's. would either be filled direct if possible, or petrol decanted into containers at the units transport lines. Petrol pipe lines could also be introduced. The problem of petrol distribution does not appear to present any overwhelmingly difficult problems.

The Imperial Policy therefore as regards mechanization may be summarised as follows:—

- (a) Abundance of mechanical transport for the troops and services. This is to be provided by the encouragement

in place of the use of suitable types of vehicles. The abolition of the H. P. tax would go a long way to help.

- (b) Sufficient fighting vehicles for a small highly mobile striking force which can operate over most kinds of terrain.
- (c) Sufficient reserves of well trained Infantry and Cavalry to step in where the A. F. V's. fail.
- (d) Sufficiency of animal pack transport to keep a reasonably strong striking force mobile in country impossible for M. T.

This appears to be all that is possible or desirable until the time comes when some form of mechanical pack animal is invented.

## “MULTUM IN PARVO”.

By

MAJOR L. BROWNING, R.A.

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### *General Remarks.*

1. By October 1918 the British Divisions, sent to the Italian front after the disaster of CAPORETTO, had been withdrawn once more to FRANCE, with the exception of the 7th, 23rd and 48th Divisions. Lord Cavan was in command of these three divisions, which constituted the XIV Corps.

The Italian commander-in-chief had decided to launch a general offensive against the Austro-Hungarian Army, in order to co-operate with the Allied offensive in France and elsewhere. In this offensive the three British divisions were to take part.

These British divisions, fortified by rest from the mud-heaps and trench warfare of France and Flanders, trained to a high pitch of efficiency and composed of some of the finest fighting material in the world, were inevitably allotted an important part in the projected battle.

The question arose as to where they should be employed. On the northern front? All three divisions were *in situ* there and holding a part of the trench line on the ASIAGO plateau. This mountainous area, however, with its limited avenues of advance where the advantage was in favour of the defence, did not offer scope for the employment of such first-class troops. On the other hand, were they to be withdrawn and put into the line elsewhere, a definite clue would be given to the enemy as to the probable area of the next offensive. The eastern front, on the other hand, ran throughout its southern sectors along the R. PIAVE. This river constituted a formidable obstacle, but, once crossed, there lay open flat country affording scope for manoeuvre of well-trained troops. It was therefore decided that the 48th Division would (for strategical camouflage) remain on the ASIAGO front and co-operate in any attack there, while the 7th and 23rd Divisions would be withdrawn to take part in the offensive on the east.



*The General plan.* ( *Vide* sketch map).

2. The general plan for the offensive was for the 10th, 8th and 12th Italian armies to attack across the R. PIAVE and drive a wedge between the 5th and 6th Austro-Hungarian armies—forcing the 5th Army eastwards and threatening the communications of the 6th Army which ran through the VALMARINO Valley. In the north the 4th Italian army was to attack in the GRAPPA sector so as to give the Italians more elbow room; moreover, to deceive the enemy, this attack was to start 24 hours before the main offensive, fixed for 25th October.

*Factors.*

3. To obtain the true picture of the situation then existing, it is necessary here to remark on certain factors affecting it.—

- (a) *The country.*—In that part of N. E. Italy the country is very flat and covered with crops (maize in particular), large buildings and out houses. Dykes and canals abound, as also vineyards. Excellent roads, well shaded with trees, are numerous. The houses are strongly built and can easily be made into minor redoubts and “strong points.” In fact, though offering scope for manœuvre, the natural and artificial minor features would make a determined defence difficult to overcome.
- (b) *R. Piave.*—This varies from  $\frac{1}{2}$  to some 2 miles in width. Sandbanks and channels constantly alter their position, especially in floods which cause the river to rise rapidly. The main island on the British front was one about 4 miles long by 1 mile broad, treeless but with low scrub in parts; this is named the GRAVE DI PAPODOPOLI. The main river channel ran between it and the right bank of the PIAVE. The river itself is here contained by high “bunds” which only defilade from direct view the ground immediately in rear. Between these bunds, across the river, there was no obstacle to vision.
- (c) *The weather.*—This was very hot and severe thunderstorms were frequent. There was much dust, rendering the concealment of movement difficult. We shall see later that weather played a very important part in the battle, first by flood and then by mist.

- (d) *The enemy* was composed of a heterogeneous collection of races, war-weary, underfed, of varying loyalty and fighting efficiency: Slavs, Croats, Hungarians, Austrians, Bohemians, Slovenes—in fact all the mixed ingredients of the former Austro-Hungarian Empire. Deserters were numerous and thus the gaining of information was easy. An order published about that time throws a vivid light on the enemy mentality, *viz.*, "If the front does not remain firm, it is doubtful whether the Entente will negotiate. They would then occupy TRENT and TRIESTE and dictate the peace. It would be an unparalleled disgrace if the Italians were allowed to conquer."

Opposite the British sector were the 10th Division (a weak division with some good regiments, but largely Slav) and the 44th Schutzen Division (a good division, largely Hungarians, rested and fresh).

- (e) *Morale.*—For the reasons given above, the enemy morale was, on the whole, low. Needless to say, that of the British was very high. The Italians, burning with a desire to retrieve CAPORETTO and regain their "Italia Irridenta", were full of fight.

#### *The British Movements.*

4. (a) In accordance with the general plan, the 7th and 23rd Divisions were secretly withdrawn from the ASIAGO plateau and concentrated in the TREVISO area by 16th October. Lord Cavan was placed in command of the 10th Italian Army, consisting of the XI Italian and XIV British Corps.
- (b) The XI Italian Corps were already holding that part of the line destined for the British attack, *i.e.*, from PONTE DI PIAVE to PALAZZON, a distance of roughly 10 miles.
- (c) On 21st October XIV Corps took over part of the line from XI Corps, *i.e.*, from SALETTUOL to PALAZZON, a distance of about 4 miles, with the 7th Division on the right and the 23rd Division on the left.

#### *The British Plan.*

5. (a) It was imperative that once launched the offensive should proceed without check. To obtain a firm foothold quickly

on the left bank of R. PIAVA was thus a *sine qua non* for success.

The enemy, however, held, in some strength, with entrenched posts, the island of GRAVE DI PAPODOPOLI, to capture which was a serious task in itself.

The main channel (as already mentioned) of the R. PIAVE ran between the GRAVE and the right bank of the river. This channel was unfordable and some 200 yards wide. Between the GRAVE and the left bank of the PIAVE the obstacles were not nearly so great, the area consisting of small islands and shoals separated by small channels mostly fordable. The capture of the GRAVE would thus overcome the main obstacle to the passage of the river. Lord Cavan, therefore, decided that the GRAVE was to be taken by a subsidiary operation just prior to the main attack.

The latter would thus have greater chances of success, the possibility of delay or check on the intermediate objective of the GRAVE having been eliminated.

Unavoidably, the subsidiary operation would to some extent vitiate the all-important element of surprise for the main attack; but it was considered that the enemy, with the short time at his disposal between the attack on the GRAVE and the main attack, would not be able seriously to alter his dispositions accordingly.

- (b) The small island of COSENZA, between the GRAVE and the right bank of the river, was already in our hands and connected to the mainland by foot-bridges.

This could be used as the jumping-off ground for the capture of the GRAVE, but it was obvious that to ensure success, meticulous preparation and attention to detail would be necessary. The subsidiary operation, in fact, would have to be a very carefully worked out “set piece” with a limited objective, and surprise was essential.

- (c) Among the many matters of detail which were arranged were the following :—

- (i) *Boats and bridging.*—35 ferry boats, each accommodating seven men, were collected. Material for the construction

of a foot-bridge for infantry in single file between the two islands was also concentrated secretly on COSENZA. The 18th Italian Bridging Company provided the ferry-men, as the handling of the boats without lights in a treacherous stream required expert skill.

- (ii) *Traffic control.*—A special traffic map was issued to all concerned and routes were carefully reconnoitred by the officers and men taking part. To avoid dangerous crowding or confusion, special officers were detailed to supervise the assembly areas on the mainland (Area "A") and on COSENZA (Area "B.")
- (iii) *Hydrography.*—A special Italian section reported continuously on the height of the river and the pace of the current.
- (iv) *R. A. F.*—Continuous, though unobtrusive, reconnaissance was carried out and many photos taken. These photos were issued on a wide scale to attacking troops.
- (v) *Rehearsal.*—Troops who were to embark were practised beforehand in getting into and out of the ferry boats quickly in the dark.
- (vi) *Secrecy.*—All reconnaissances were controlled so that no undue movement should be visible, and Italian cloaks and steel helmets were worn. Apart from the usual precautions *re-smoking*, lights, etc., etc., all jangling arms and accoutrements were padded.
- (vii) For the attack on the GRAVE there was no artillery preparation, no shell being fired till daylight the next day. Rifles also were not loaded, the bayonet only being used.

### *The Capture of the Grave.*

6. Movements to assembly areas started at dusk on the 23rd October and soon after the Italian boatmen, with marvellous skill, commenced the ferrying from COSENZA to the GRAVE.

The attack was entirely successful, the enemy being completely surprised and losing 300 prisoners, as compared with a mere handful of British casualties.

By dawn on 24th October, the British were securely established on the northern half of the GRAVE and the remainder of the island

was captured on the night 24th/25th. Considering the open nature of the ground, the British suffered surprisingly few casualties from the somewhat intense shelling to which they were subjected during daylight on the 24th.

*Postponement of the Main Offensive.*

7. The main obstacle was passed, but during 24th the R. PIAVE rose in flood and became a raging torrent. The main offensive thus had to be postponed till the 27th.

Though the weather upset calculations to our detriment in this respect, it favoured us in others. A thick mist permitted heavy bridging to be carried on in daylight and thus for the main offensive there was sufficient, though limited, means of passage across the main channel.

*The Main Offensive.*

8. As is well known, the main offensive was marvellously successful. After stubborn fighting in the initial stages, the enemy broke, with British and Italian troops in hot pursuit. The great battle of VITTORIO VENETO was won and the “ramshackle Empire” was destroyed beyond repair. The rapidity and completeness of the victory can be seen by a glance at the line (on sketch map) reached on successive days after the 27th.

*Conclusion.*

9. This brief sketch of the British operations on the PIAVE front is intended to demonstrate a well nigh perfect example of one phase of war.

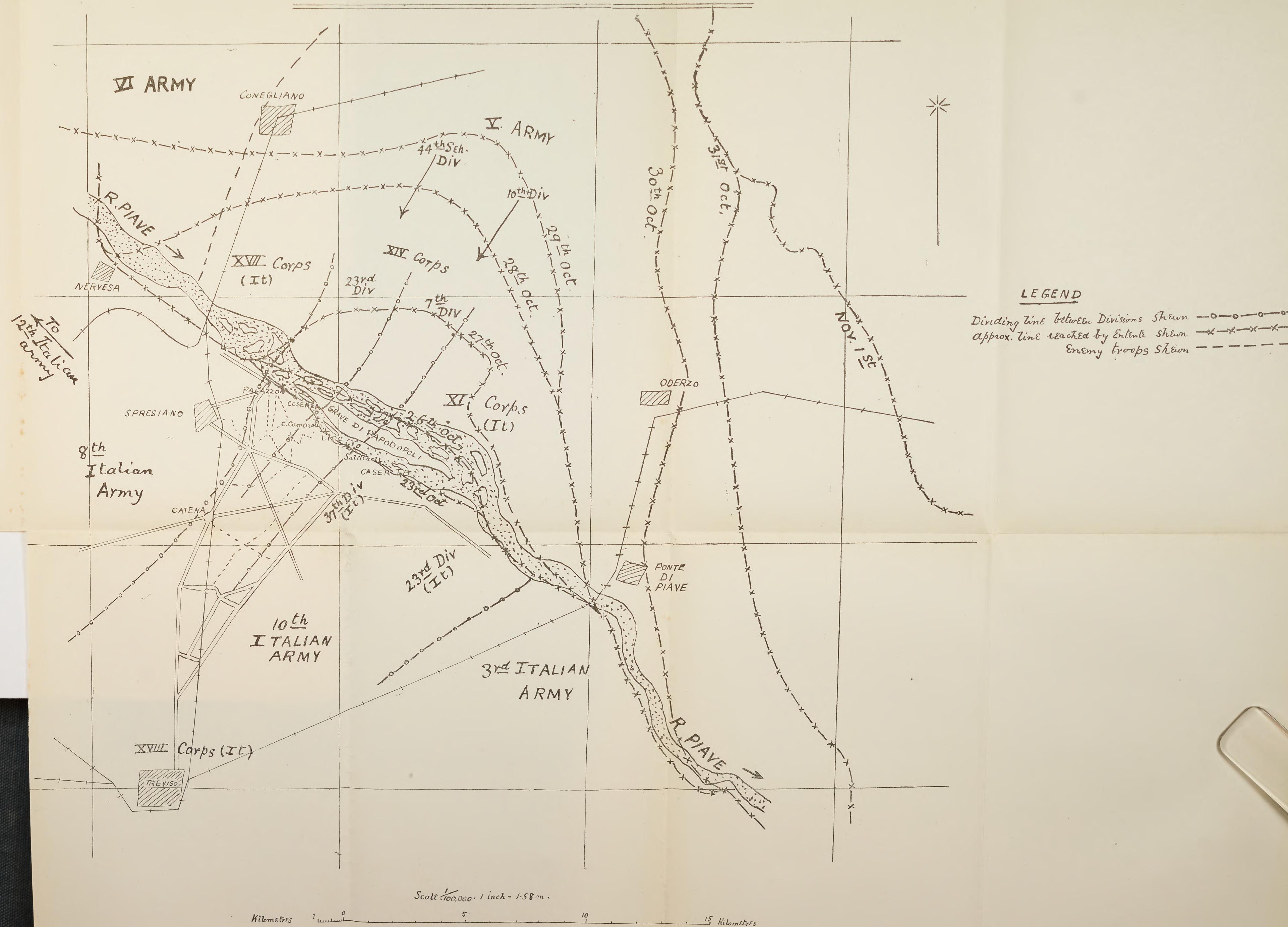
The forcing of a river passage has always been a difficult, though not insuperable, task in war. With the advent of Armoured Fighting Vehicles it is possible that in a future war more recourse may be had to river lines as a means of defence. *Ante tempus, ante moeurs*, but a study of happenings in such cases gives us a guide for the future.

The principles of the Attack hold good under all conditions, but the application of these principles is perhaps most difficult in cases where there is some great initial obstacle (e. g., a river) to be overcome.

As Ludendorff so rightly says in his book, and as is stated in F. S. R. Vol. II, (1924), Sec. 5 (4), when framing a plan of campaign “the relative probabilities of tactical success must receive full consideration.” The most brilliant strategy will fail if the tactical conception to give



SKETCH MAP to illustrate the forang of the R. PIAVE, ITALY, - October. 1918







effect to that strategy is unworkable. The Italian strategy for VITTORIO VENETO was excellent, but, if the PIAVE had not been "forced" that strategy would have failed. If the GRAVE DI PAPODOPOLI had not been captured, it is doubtful whether (at any rate till a much later date, which would have permitted the enemy to alter dispositions accordingly) the RIVER PIAVE would have been crossed; the river was still high and the ground offered less facilities for passage elsewhere. And so we get back to the subsidiary operation, the good tactical plan deciding the fate of the whole—"Multum in parvo."

F. S. R. Vol. II (1924) Section 67, lays down general principles for the attack. Extracts read as follows: "There must be a good tactical plan, based on the best information available; there must be secrecy in preparation; surprise in delivery; and skill and vigour in execution.....there must in addition be close co-operation between all arms.....each body of troops assigned to a distinct tactical operation must be placed under one commander." Apply these sentences to the operation under review and we see that they were carried out to the letter.

Many other sections of F. S. R. Vol. II (1924) bear equally well on this battle, notably Section 5....."the course of action.....demands not only a detailed knowledge of the relative strengths, armament and morale of the opposing forces, but also a careful study of the psychology of the enemy people of their national characteristics, resources and means of existence."

Finally, we see the effect of a very few well trained divisions at the decisive point. Numbers are not everything, witness the effect of the B. E. F. in 1914—a mere handful in the vast multitude of opponents. With the removal of the linch-pin, the wheel falls and the cart is useless. The correct application of the various fighting values at a commander's disposal is merely an extension of the principles of economy of Force and concentration of Force at the decisive point.

The decisive point on the PIAVE front was undoubtedly the GRAVE DI PAPODOPOLI and the action of the troops thereat exercised an influence over the vast battle of VITTORIO VENETO out of all proportion to their numbers—"Multum in parvo."



## MAHSUD WAZIRISTAN 1919-20.

By

“ W ”.

*(References are to the map at the end of the official account of the operations.)*

Recently I had the pleasure of meeting Shahbaz Khan, a malik of the Alizai, the largest section of the Mahsuds, who is now a Sub-Inspector of Police, but who in 1919-20 led a lashkar of some 1,600 men in the fighting with General Skeen's column between Jandola and Makin. He very kindly gave me the following account of those operations as they appeared from the Mahsud side of the hill.

Claiming Duranni descent, the Alizai had eagerly risen in arms when the Amir Amanullah (the head of the Duranni) made war on India in May 1919; but at the jirga held at Khirgi in November for the purpose of settling terms with the Indian Government, the Mahsuds, although willing to comply with the other clauses, could not accept that one providing for the construction of the Shahur road, since it violated their country. When the punitive expedition ordered by the Government of India assembled at Jandola in the middle of December, the Mahsuds had conformed by concentrating about 4,000 men at Kotkai. Their actions in the subsequent fighting and negotiations were governed by a fierce determination to maintain their country's freedom; among the wilder men there was a certain amount of fanatical desire to kill all 'kafirs'. Another jirga was called at Jandola on the 17th December; but it was attended by men without authority among the tribesmen, who resented their participation. On the same day the troops at Jandola started to build picquets on the Spinkai Raghza. This crossing of the Takki Zam set the Mahsuds in motion; they rushed the picquets, and would have attacked the camp beyond, but were held up by fire from Jandola Fort and Camp, and from the camp picquets. In order to show their disapproval of it they fired on the jirga also an act for which Shahbaz Khan's father-in-law, who was present with the jirga, subsequently reproved him. On the following day, when the Derajat Column moved out from Jandola to Palosina, the Mahsuds, remained in observation for the most part, so as to ascertain its strength.

The Mahsuds then decided to attack the column as opportunity arose, and on the 19th December were successful in driving back the troops who were endeavouring to place a picquet on the right bank of the Takki Zam; but they were unable to continue their advance into the bed of the Zam where it widened out downstream, from which point they had hoped to attack the camp, owing to the fire from the picquets on the Spinkai Ghash ridge. Parties of tribesmen were to the north and east of the camp that day, but did not find a favourable chance for attacking. The next morning they saw the troops again move out and establish a picquet on the right bank of the nullah (on Mandanna hill), and realised that an attack on the camp from that direction would cost them heavy casualties. They therefore held a jirga at Kotkai, and decided that in order to avoid the fire of the picquets, they would attack Palosina camp by night. Darkness, they judged would also give them cover from artillery fire and aeroplane bombs. The capture of Mandanna picquets on that evening was made by a party of men who wished to show their courage and to obtain rifles. It had not been designed by the maliks and did not lead to any change in their plans. Great care was taken to preserve secrecy at the jirga; the plans formed were kept known to the maliks only, because they were aware that spies were carrying information to the Column camp. The punishment for treachery was either death or amputation of the man's feet, unless there were extenuating circumstances. These circumstances were that some of the same spies also supplied the Mahsuds with a good deal of information about their enemies. The attack was settled upon for the night 21-22 December, and the plan of operations was as follows:—Parties of bombers (the Mahsuds were in possession of some hand grenades) were to be detailed to engage every picquet, including the one on Sarkai ridge, with the intention of drawing their fire, not of assaulting them. Another party was to take up a position on the bank of the Takki Zam opposite Jandola, with the object of intercepting at the nullah crossing, reinforcements who might be sent from Jandola, a contingency of which they were somewhat nervous. The main body was to be divided into two parties. One was to approach the camp from the south west and to open fire on it for the purpose of drawing the reserves towards that face of the perimeter. The other party was to form up against the north side of the camp and to assault when the fire of the western party had succeeded in engaging

the reserves. The intention was that the western party should then also join in the assault. The Mahsuds did not anticipate any difficulty in taking the camp, following on which they expected that the picquets would hand over their rifles. After this action they intended to besiege Jandola, cutting its communications at the Hinnis Tangi. Unarmed men were specially detailed to look after the wounded, and it was arranged that fighting men should not attend the burials of the killed. General Skeen's operation on the morning of the 21st December at Tarakai (Pioneer Picquet), however, forced their hand.

In the early morning of the 21st, an aeroplane arrived over Kotkai and dropped bombs, with the result that the Mahsuds took shelter in caves; and on emerging later, they saw to their surprise a picquet and barbed wire being erected on Tarakai. This move was quite unexpected, and it was immediately appreciated that it would interfere with the projected night attack on Palosina. Consequently there was much excitement and an attack was made on the hill without any plans being framed. The tribesmen pressed forward, losing heavily from the rifle fire of the picquet itself, the covering troops on its flanks and the Palosina camp picquets. No organised covering fire was given, and the attack was made on the spur of the moment. One of the difficulties which had come to light at the Kotkai jirga was the lack of means, in an unorganised lashkar, of passing orders to every individual. At the wire round the sangar they checked; they had already lost heavily, and they had no previous experience of attacking a barbed wire obstacle in daylight.\* Some counselled delaying the assault until dark. Finally an old white-bearded man, Badshah Mir of the Jalal Khel, armed with a sword and a quick-match 'bundook' jumped up and called upon someone to follow him. He was answered by an Alizai, Paiw Mir, whereupon he threw away his gun and, with Paiw Mir, led a rush of Mahsuds into the picquet. Both were killed inside the walls together with many other Mahsuds, probably by heavy shell fire which then opened and which was seen by Shahbaz Khan to cause many casualties around the sangar. Shahbaz Khan urged them to continue the attack to Palosina camp; and he completely lost

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\* This is corroborated from the British side. There was a distinct check at the barbed wire fence, which consisted of a single row of stakes with 3—4 strands of wire, behind which the Mahsuds gathered and threw stones into the picquet. The defenders' ammunition was by then exhausted, and the evacuation had almost been completed.

his voice in shouting to them to leave the loot and the wounded and to come forward. Tribesmen, however, cannot be controlled in a fight. Many men left the field at this point ; some who had collected several rifles made for their homes so as to deposit their surplus arms. Others carried back the dead and wounded for no Mahsud expected quarter from the British if he were captured. Since their losses had amounted to 250 killed and 180 severely wounded, many of whom succumbed later, there were too few men to carry out the projected attack that night \*. The bulk of their casualties were caused by rifle fire during the attack on the sangar. They also lost heavily from artillery fire, the searching effect of howitzer shell being much more effective than shrapnel.

After the action at Pioneer Picquet, the Mahsuds abandoned the idea of a direct offensive and decided to fight on ground of their own choice, determining on the defence of the Ahnai Tangi. They considered an attack on Kotkai, where the Column was now camped, not feasible on account of the strength of the camp picquets and the danger from their Lewis gun fire. From their point of view the fight with the 4/39 Garhwal Rifles on Spin Ghara was a success, but they were unaware of the moral effect which that gallant action had on the Column. At the same time they found that the system of building permanent picquets ahead of a move, and of occupying strong outlying picquets on arrival at camp, gave them no opportunities for attack except with undue risk. The Mahsud plan was, therefore, to defend the Ahnai Tangi, and to counter-attack the Column when its attempt on the ridge had failed. They were quite confident of holding the Tangi, and hoped by their counter-attack to be able to rout the Column before it could regain Kotkai camp. They thought it possible that if the Tangi were held strongly, the Column might advance by the Inzar Algad ; in this case, they considered that it would have difficulty over the supply of water. The Mahsuds were concentrated round about Marble Arch, and, as a result of their surprise at Pioneer Picquet, they detailed men to remain on the hill tops by night, with others to carry them food and water. When, however, General Skeen made his night advance on to the hills round the Ahnai Tangi, these men failed to give

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\* 250 killed indicates about 500 wounded, making a total of 750 casualties ; these with the men employed in carrying them back and in removing loot, must have resulted in about half of the lashkar having become non-effective.

the warning, and, on the morning of the 11th January, Mahsuds moving to their customary positions on the hills were surprised to find themselves walking into the middle of the enemy.

This night movement admittedly outwitted the tribesmen, and disheartened them considerably by the thought that the Tangi had been lost without a struggle. Until, therefore, they could get artillery support from the Afghans, they had no further plan than to harass the Column and to obtain rifles whenever possible. For this purpose they scattered their forces in the hills round the exit of the Tangi, the Alizai lashkar being in the area Khwaja Ghundai (Dazzle Hill) and the hills opposite to Ahnai Right Bank. The Mahsuds surmised that after the capture of the Tangi the Force would build permanent picquets before making a general move ahead, and the early morning start of the whole column on the 14th January once more caught them unawares. The first intimation of the move to the Alizai was to men who were cooking outside some caves below Dazzle Hill, who noticed troops moving along Flathead Left. During the day the Alizai lashkar confined itself to long range shooting at the picquets and at the Column; Shahbaz Khan himself did not know that the force spent the night in the river bed at Asa Khan.

Eventually, when the Column had reached Sora Rogha, the Mahsuds were able to obtain artillery support from the Afghans. Two guns under some officials of the Afghan Government arrived, and a stronger lashkar of Mahsuds than had ever before assembled gathered upstream of Ahmadwam. Their plan was to take the picquets west of Sora Rogha camp with the help of shell fire, and then to attack the camp itself. The hopes that they had placed in the guns were not to be fulfilled. Their first doubts arose just before the guns opened fire, when the Afghan officials Haji Abdur Razak and Brigadier Shah Daulah called upon them to pray that their aim might be correct; a pious act but not conducive of faith in the artilleryman. Doubt changed to realisation on seeing the shells fail to burst. When, therefore, the early morning advance of the Column on the 1st February nearly resulted in the capture of the guns, they told the Kabulis to take them away and not to bring shame upon them by losing their guns. After this they realised that there was no hope of driving the British from their country by force; and they were compelled to make peace.

Mutual mistrust terminated the negotiations opened at Makin. The preliminary terms had been the surrender of 150 British and 300 Mahsud-made rifles, and a fine. The maliks brought part of these to Tauda China Camp, and although some of the bolts and magazines certainly had been retained, they brought the balance towards Marobi the next day. When about half a mile from the camp, an aeroplane came low over their heads. This caused them to take cover in nullahs and behind bushes. However, on seeing the pilot signal to them with his hand to come out and that he did not intend to bomb them, they went forward. They met first the Political Tehsildar and then the Political Officer who informed them that as they had not complied with the terms at Tauda China, the Column was going to visit Kaniguram, although not for the purpose of destroying it. Since their country was not being evacuated, the Mahsuds felt that they had been cheated and asked for their rifles to be returned to them. They were told that they might come to the camp and collect them, but, fearful of being arrested when in camp, they refused to do so and went back to continue the war.

The incident is now past history, but it shows that when feelings run high the lowest motives can be imputed to the most straightforward actions, especially by a people feeling bitter, as the Mahsuds were, at the inevitable loss of their country's freedom.

From the Mahsuds side, the fighting fell into three stages. The first was their offensive at Palosina, culminating in the projected night attack on the camp, which was forestalled by the fight at Pioneer Picquet. The next stage was an action on ground of their own choice, in the form of a preliminary defence of the Ahnai Tangi, to be followed by a counter-attack which was expected to have decisive results. In this their plans were again upset by the unforeseen loss of the Tangi ridge, an event which brought on an unorganised fight at Asa Khan. In the final stage the Mahsuds found themselves obliged to resort to aid from auxiliary arms, and on obtaining it they again planned an offensive. Artillery fire was to help them take the picquets which barred every approach to Sora Rogha camp, and after that they intended to attack the camp itself. With the failure of the guns they saw that they were powerless to prevent the ultimate result of the campaign. Lack of control in a fight, the habit of dispersal with loot, and the absence of a single leader, were the Mahsuds' greatest handicaps; courage was not

wanting ; and they claim, with justice, that they fought with a determination that no other frontier tribes have hitherto shown.

From a tactical point of view, two main facts of interest arise. One is the Mahsuds' decision upon a night attack as the means of avoiding the effect of modern arms. In frontier fighting in the future, therefore, there is reason to expect that other tribesmen will do likewise.

The other fact is that the Column owed its existence entirely to its commander. At the present day, with a well trained army, the extent of the column commander's task is liable to be overlooked ; but if his judgment is to be properly appreciated, the moral state of both opponents must be taken into account. On the one hand a sense of depression pervaded the Force throughout the early days, which manifested itself in a number of unrecorded instances of riflemen lying inactive behind cover, and of small parties of men abandoning their positions without orders. This condition obtained up to, and even during, the action of Asa Khan. It was due to a realisation that the enemy was superior with the rifle, and arose from a lack of training rather than from an inferiority in natural fighting qualities, for, although intensive recruitment during the previous three years had brought some non-fighting men into the ranks, the majority came from fighting classes and the fault lay in the individual soldier's want of confidence in his rifle. The enemy, on the other hand, was fiercely determined, and in the first two phases of the campaign at Palosin and at Asa Khan he strained the regular troops practically to breaking point. Yet on each occasion the commander, by choice of ground, by the use of defence works, or by surprise, brought the task just within the capacity of his men.

At Palosina, the moral condition of the troops would not have withstood the assault so thoroughly planned for the night of 21-22 December. In spite of two reverses on the two previous days, the commander relieved the situation by an offensive movement—the construction of a picquet on Taraka—choosing ground which lay within easy support of the camp and which had no ill associations of defeat. Later, having worked the column forward by means of a series of permanent picquets, it happened that on the 10th January he was camped in a very difficult situation facing the Ahnai Tangi. In front the Tangi ridge was a formidable position, on the right the Konr range had twice

defied his efforts to establish a picquet on its slopes, and at the same time the action of 7th January had shown the need for a supporting point on that flank. Knowing now the temper of the Mahsuds and their intention of counter-attack, and with the record of the losses suffered by the troops in open positions on the difficult slopes of the Konr, and remembering that morale was not high, the danger of the circumstances is evident. Yet within 24 hours of the second failure to establish the supporting point on the Konr, General Skeen had captured the whole enemy position by a bold surprise movement at the cost of 33 casualties, an action which had a very far-reaching result, as, three days later, it involved the Mahsuds in an unrehearsed fight, chagrined at the loss of their position, with their forces scattered, and with part not exerting their full pressure. Lastly, when the Mahsuds were disheartened at the failure of their guns and were wavering, he forced a decision by another surprise advance, and so gave the final blow to their hopes of driving the column out of their country.

The principal lesson of the campaign is one of leadership. In the course of the struggle the fate of the Column more than once hung in the balance; and Shahbaz Khan's narrative shows that each time the factor to turn the scale was the commander's judgment. On each occasion General Skeen selected the right course of action, and the one which met the situation as it actually existed rather than as it was then known; and it was his skill in adapting his offensive to the material at his disposal that brought the force through the campaign safely and successfully.



## SOME LESSONS OF THE PALESTINE CAMPAIGN.

By

CAPTAIN O. R. C. CAREY, 15TH PUNJAB REGIMENT.

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### *Introductory.*

All campaigns bring out many lessons as diverse as they are numerous in fact, in a campaign of the length and scope of that of Palestine from 1914—1918, it would be hard to find a precept in Field Service Regulations for which an illustration could not be found.

At the same time every campaign illustrates some particular lessons and principles more clearly than it does others. Thus the Dardanelles campaign throughout its course throws an extremely clear light on the effects and consequences attendant on the failure to surprise an enemy. The student of rear-guard actions would naturally devote much time to the study of the movements and actions of the B. E. F. in France during August and September 1914, and to certain periods of the Peninsular War.

In a similar way the Palestine campaign gives us practical descriptions of the carrying out and effect of various principles and precepts—better illustrations of which it would be hard to find. It is with these particular lessons that it is proposed to deal.

These lessons can best be brought out, not by dealing with various phases of the campaign in chronological order, when the more important points might be obscured in illustrating those of lesser importance, but by taking the principal lessons in what seems to the writer, their order of usefulness and the particular phases or actions in the campaign which most clearly illustrate them.

### *Mobility.*

To any person with even a slight knowledge of the operations in this theatre of war, one salient principle is brought out in the conduct of the campaign, namely—the mobility or the power to manoeuvre displayed by the British Forces.

Various causes made this mobility possible, chief amongst which were :—

- (i) The efficiency of the organization and communications.

- (ii) The superior strength of the British Force in the mobile arm employed, in the present case—cavalry.

The advantage conferred by mobility is not confined to actual movement once battle has been joined, but is of equal importance to the Commander of a force in making his tactical dispositions, free from interference by the enemy, before he actually opens his attack or engages in battle.

An excellent example of the advantage conferred by the power of manoeuvre both before and during a battle, is brought out by the battle of Sharon on September 19th 1918, and the subsequent pursuit and defeat of the Turkish 7th and 8th armies. In the preliminary dispositions for the attack, General Allenby was able, owing to good organization and communications, to concentrate his Force for the main attack in the coastal plain. The 4th cavalry and Australian mounted divisions were moved across from the Jordan Valley, and the 60th division from the Judean hills, a considerable distance in each case.

The actual battle commenced at 4-30 a.m., and by noon on the same day the 4th and 5th cavalry divisions were over 20 miles in rear of the original Turkish positions and had completely turned their right flank.

By dawn the following day they had reached the plain of Esdraelon, 30 miles further on, blocking all the main lines of retreat of the enemy. This action probably constitutes the finest example of the value of mobility, when used to its full extent, that it is possible to find.

To realise in this case the full value of the use of mobility, one only has to imagine for a minute the course of the battle if—

- (i) owing to faulty organization, the concentration of the attacking force had not been possible in the necessary time, or had been mismanaged and had come to the knowledge of the enemy or,
- (ii) the two divisions of cavalry had not been available to exploit the success of the infantry.

In the first case the attack might still have eventually succeeded, though surprise effect would have been lost, casualties would have been infinitely greater, and the complete rout of the Turkish armies

would not have taken place. In the second case, the enemy would have had a chance of reforming on the line of the hills to the north of the plain of Esdraelon i.e., Acre—Nazareth—Semakh, an excellent defensive position, and the subsequent practically unopposed advance on Damascus and Aleppo would never have been possible.

There are numerous other illustrations of the value of mobility throughout the campaign, a striking example being that of the battle of Beersheba on the 31st October 1917 where General Allenby was able to collect a force of two cavalry and four infantry divisions, the majority of which had been moved over from his other flank, without the knowledge of the enemy. As in the battle of Sharon, the mobile arm was able to exploit, though not so completely, the success of the infantry. The first main objective, viz., the capture of Beersheba itself, before the enemy had time to destroy the wells, was attained by it.

The successful actions of Rafa and Magdhaba in December 1916 were made possible only by the employment of mobile troops, the same arm all but securing the defeat of the enemy at the first Battle of Gaza, and, as a last instance, without mobile troops the Es Salt and Amman raids could never have been attempted. In each case it will be found that mobility was used as a means to effect surprise and it thus achieved its primary object (F. S. R. II Sec. 2 [ii]).

Before turning to any other of the main principles of war, practical examples of which are contained in this campaign, I will touch on one or two points subsidiary to this main feature of mobility and the means used to attain it.

*The Limitations of cavalry when opposed by entrenched, though isolated, positions.*

One of these points, namely the question of the necessity of adequate fire power being at the disposal of mobile troops, and the difficulties these troops have in overcoming entrenched positions of any strength, is well illustrated by the actions of Rafa, Magdhaba, and Tel es Saba. In that very interesting book, "The Palestine campaign" by Colonel Wavell, this question is dealt with very clearly, though one realizes that he considered the subject before the new machine gun organization came into force. This new organization should greatly help cavalry in approaching such entrenched positions, owing to the extra covering fire afforded by the increased strength

of the machine guns available ; but it must also be borne in mind that against positions of any strength which it is absolutely necessary to assault, cavalry must dismount and advance on foot. Now that their rifle strength is proportionately less than previously, and allowing for the great decrease in available strength owing to the necessity of leaving a large proportion of men out of action as horse-holders, it would appear that mounted troops in corresponding actions in the future will suffer not so much from lack of covering fire, which their extra machine guns will supply, but from lack of power in the actual assault.

Once cavalry take to dismounted action they suffer the same limitations as infantry, and require strength in rifles and bayonets, weapons which are necessary to complete the victory (F. S. R. II 13 [6]).

It is doubtful if even an extra proportion of artillery would compensate for this weakness in assaulting power when cavalry are set against heavily entrenched though isolated positions, and it would appear that such tasks requiring at the same time great mobility on the part of the attackers, combined with the power to assault, will, whenever possible, have to be delegated to infantry carried in mechanically propelled vehicles, such troops being able to fulfil both the conditions required.

*Organization is a preliminary necessity if mobility is to be attained.*

Field Service Regulations, Volume I, para. 2 (2) states that, "The first principle of war organization is mobility." Conversely it may be said with equal truth that "to attain mobility the primary necessity is organization." This is abundantly proved in the Palestine campaign.

In his despatch of June 28th 1919 General Allenby says that "The organization General Murray created..... formed the corner stone of my success." and it is only necessary to compare the Turkish advance across the Sinai Desert during 1915 and its results, with that of the British in 1916, to realize the great advantage such organization confers.

Immediately after the fall of Jerusalem in December 1917 General Allenby was pressed by the War Cabinet at home to continue his attacks, with the object of capturing Aleppo and completely defeating the Turks. He very rightly refused to do this until he had reorganized

his force and had perfected his communications over the newly acquired territory. Ample justification for this decision is borne out by the overwhelming success of his final attack, eventually launched after these arrangements had been completed.

*The necessity, whenever possible, of utilizing fresh troops to exploit success.*

The action of the cavalry after the breaking of the Gaza-Beersheba line brings out a rather interesting point. The task set the desert mounted corps was undoubtedly to intercept and get in the rear of the retreating Turks, and although this corps gave the enemy no rest and kept him on the move, they never actually succeeded in getting behind any large enemy formations. One of the chief reasons for this was undoubtedly the lack of water in the area over which they had to operate, but one cannot help being drawn to the conclusion that rather too much had been asked of the mobile troops on this occasion. It must be remembered that they had taken a very large part in the actual battle at Beersheba, i.e., the forcing of the enemy's defensive system, and, therefore, when the time came to exploit the success of that battle, they were no longer fresh troops. F. S. R. II, Section 87 states that "Infantry and artillery which have penetrated the enemy's position must.....continue to press him to the utmost, but exhaustion.....at the end of a protracted battle, makes such pursuit only temporary and it will seldom lead to decisive results."

It would appear that when cavalry are used in the main attack, similar limitations, as regards capabilities for the exploitation of success, apply equally to them. It is interesting in this connection to compare the results achieved by the cavalry after the break through on the coastal plain in September 1918. In this latter case the cavalry took no part in the actual forcing of the enemy's line and their subsequent pursuit of the enemy was completely successful, not only in keeping him on the move, but also in cutting off his lines of retreat.

*Surprise and concentration.*

Besides mobility there are two further principles of war which are clearly illustrated by this campaign i.e., surprise and concentration.

The application of the former is well borne out in the very successful steps taken to deceive the enemy as to where the decisive blow

was to fall, both in the attack on the Gaza-Beersheba line in October 1917 and in the final attack in September 1918. These two battles also give excellent examples of the carrying out in practice of the principle of concentration, as General Allenby—to quote F. S. R., Vol. II—in each case “concentrated superior force, moral and material, at the decisive time and place” and employed this concentration resolutely.

It is not proposed to enlarge on these two illustrations here, as although they form excellent examples of the two principles mentioned, equally good illustrations can be found in other campaigns.

Before concluding there are one or two minor lessons brought out by the study of the operations in this theatre of war, which are well worth consideration.

*The defensive battle should be fought in advance of localities, the retention of which is vital to the defender.*

To revert to the opening of the campaign with the British defence of the Suez Canal in 1915. The original defensive position of the British Force was on the western bank of the Canal. This was undoubtedly a tactical error, as not only did it not secure the defence of the canal against a raid by the enemy, but furthermore committed the defending troops to the rôle of completely passive defence, and also, as was well borne out after the first Turkish attack, severely handicapped them in harassing a retreating enemy. Such a defensive position is strongly deprecated in the present edition of F. S. R., Vol. II, which states, in section 89 (2), “The defensive battle should be fought in advance of localities the retention of which is vital to the defender.”

*Comparison of the capabilities of cavalry and mechanized forces, when operating over long distances in semi-civilised countries.*

In view of the post-war tendency towards mechanization, it is interesting to consider the possible effect of the use of a mechanized force during the latter phases of the campaign, in place of the cavalry used by General Allenby. One particular point stands out in this connection, namely, the question of the supply of fuel, spares, etc. to such a force when faced with a task similar to that which devolved on the 5th Cavalry Division in their advance from Damascus to Aleppo. In regard to this, one cannot but help being drawn to the conclusion that in an operation covering so great a distance, in what might be termed a semi-civilized country, the capability of cavalry to obtain

a large proportion of their supplies from the country over which they are operating is a deciding factor in favour of their employment in preference to a mechanized force, and that it will be many years before mechanized forces are capable of fulfilling such duties as efficiently as cavalry.

*The necessity of thorough reconnaissance.*

A small but striking illustration of the necessity of thorough reconnaissance is brought out by the Es Salt raid of 30th April 1917.

The 4th A. L. H. Brigade had been detailed to hold the crossing of the Jordan at Jisr ed Damieh and thus to secure the northern flank of the line of communication of the raiding force. Unfortunately our intelligence had been unaware of the existence of another bridge at Mafid Jozelle to the south of this position. By the use of this bridge the enemy were able to attack the 4th A. L. H. Brigade in the flank and the whole of the raiding force only narrowly escaped being cut off.

*Conclusion.*

There are numerous other instances throughout this campaign each of which has its own lesson for the student of tactics, but an attempt has been made here to consider only those whose lessons are outstandingly clear. No mention has been made of the strategical considerations which led to the opening, and affected the course of the campaign, as these would involve going into much detail regarding the prosecution of the war as a whole. The strategical considerations affecting the course of the Palestine campaign were dependent on the course of events in other theatres of operations, each theatre forming merely one component part of the world war.

## TIGRIS AND HYDASPES.

By

LIEUT.-COLONEL H. E. CROCKER, C.M.G., D.S.O.

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There is scarcely an example on record in military history of a river proving an effectual barrier to the passage of an Army led by a skilled and resolute Commander. Time and again armies have occupied what were considered impregnable positions in rear of rivers, only to find that the inviolability of the river in which they trusted was a snare and a delusion, and that the enemy were able to cross in spite of all precautions.

In this paper two famous examples of armies crossing a river in the face of large hostile forces have been selected, and will be discussed in some detail.

These two examples are :—

1. The crossing of the Hydaspes (the modern Jhelum) by the army of Alexander the Great in B. C. 326, and
2. The crossing of the Tigris by the army of General Maude in 1917.

These two operations, though separated by more than two thousand years, have many points in common. In some ways their similarity is so striking that the student arrives at the natural conclusion that Maude did not hesitate to act on the methods, or rather, the principles, of the old master.

Stonewall Jackson used to mystify and mislead his opponents. Alexander and Maude both relied on surprise to attain their object. Both used every artifice that skill and experience could suggest in carrying out their design, and both succeeded.

Both rivers were wide and unfordable, and both Commanders were confronted by a numerous and well organized enemy who was aware of their intention to force a crossing. The details, however, of the river banks vary considerably.

Alexander was able to take advantage of a bluff and an island in the river, both densely wooded, to obtain, cover for his preparations and for the actual embarkation.



The bare banks of the Tigris, on the other hand, offered no cover whatsoever for Maude's preparations, and his embarkation had to be undertaken in full view of the enemy.

Both leaders succeeded in inducing their opponents to believe that the crossing would take place at some spot other than was actually intended; but here the main points of semblance cease.

Alexander's crossing was unopposed, while Maude, on the contrary, was greeted with heavy machine gun fire, which destroyed several of the ferries and caused severe casualties.

Alexander used rafts and boats, while Maude used a bridge.

At this juncture it will be convenient to consider each crossing separately, and, finally, to draw what conclusions we can from the methods employed.

*A.—The Crossing of the Hydaspes.*

After concluding a treaty with Omphis, the King of Taxila, Alexander marched direct to the Hydaspes, where he found the army of Porus drawn up in battle array on the opposite bank ready to bar his further advance. Alexander realized at once that any crossing in the face of that well organized army, which included several hundred elephants, was impracticable, and that he must resort to strategem in order to cross unopposed.

He accordingly spread abroad the rumour that he had no intention of attempting to cross until the flood water had subsided, and the river, now swollen with the melting snows, had become fordable. To further this illusion, he collected vast quantities of stores of all kinds in his camp, as if in readiness for a long stay.

At the same time he sent out detachments in all directions to threaten the known crossings. These, at first, were followed by detachments of the enemy, but afterwards, when it was seen that they invariably returned to camp without attempting to cross, no notice was taken of them. These frequent expeditions in all directions, however, had the effect of disturbing Porus and of rendering him uncertain where the final crossing would take place. He accordingly kept his army concentrated opposite Alexander's camp, and contented himself with watching the crossings by means of mounted patrols.

In order still more to deceive Porus as to the intended place of crossing, boats and rafts were prepared all along the bank of the river in view of the patrols.

Moreover, Alexander was wont to lead out his cavalry at night to various points along the bank, where, by lighting fires and raising loud shouts, they at first induced Porus to imagine that the crossing was about to take place. Large detachments were accordingly sent to keep pace with Alexander and to oppose the anticipated crossing. After some time, however, finding that these nocturnal exploits invariably ended in the cavalry returning to their camp in the morning, they were disregarded.

By these means, Alexander accustomed his enemy to regard all night movements as mere routine and not as presaging an attack.

All this time Alexander was busy making his plan. "The time spent in personal reconnaissance is seldom wasted" as our training manuals used to say, and the truth of that maxim is well exemplified in the case of Alexander. He spent his time in carrying out extensive reconnaissances, both up and down stream, and duly reaped his reward.

He discovered at a distance of 150 stadia upstream from his camp the place he sought. It was the wooded bluff and island already described. No more favourable place could be imagined. His plan was quickly made. Leaving a trusted General clad in the Imperial robes, escorted by the Imperial Body-guard, with a reserve of chosen troops to hold the camp, Alexander led the remainder of his army by a wide detour away from the river bank to the bluff. Here, protected by the island, the rafts and boats, which had been brought up in sections on ox-wagons, were assembled, and a daylight crossing was carried out without opposition. A terrific thunder-storm which raged at the time drowned all noise.

The flotilla was not noticed until it had passed the island, when it was seen by the mounted patrols, who galloped off at once with the news.

Alexander was thus able to land his entire army on the enemy's bank without the least opposition.

It is interesting to note that the infantry crossed in boats, while the cavalry, with their horses, were ferried across on rafts of inflated skins.

An account of the subsequent battle is beyond the scope of this paper.

*B.—The Crossing of the Tigris.*

Three ferries were arranged in order to establish a bridge-head which would allow the bridge to be swung into position, over which the XIV Division would then cross.

Rowers, among whom were volunteers from many regiments, were practised for some time previously in rowing the pontoons on the Hai river. The pontoons and bridging train were brought up and hidden under cover till required.

The XIII Division and all available artillery were to cover the crossing, and the left (outside) flank was to be protected by cavalry.

As with Alexander, everything was done to distract the enemy's attention from the point where the actual crossing was to take place. After careful personal reconnaissance the Shumram Bend was the spot selected as affording excellent facilities for artillery support, while allowing a rapid extension of the bridge-head on the enemy's bank. The ground, too, afforded a certain amount of cover from view of the Turks, except from any posts there might be posted on the actual bank itself.

The following steps were undertaken to deceive the enemy. A raid was made across the river at a spot several miles downstream of the intended crossing a few nights prior to the main operation, and, on the night itself, a distraction was caused by bringing up planks in carts and dropping them noisily in the mud and water some little distance below the crossing, while another raid was also arranged still further downstream.

The Turks evidently thought that the raid was a hoax, and that the real crossing was to take place where they could hear the noise of what they imagined to be the construction of the bridge, for a column was seen approaching in this direction away from the spot where the crossing actually occurred.

The pontoons were launched and started for the opposite bank. They at once came under heavy rifle and machine gun fire, and only one succeeded in reaching the shore, the others being destroyed. The ferry that managed to reach its objective secured a bridge-head which was continually enlarged as fresh troops arrived, and permitted the bridge to be placed in position. The XIV Division then crossed and attacked the Turks who retired fighting.

When we compare the crossings of Alexander and Maude, we see at once that there are several striking points of difference as well as resemblance between the two operations, which are interesting. For instance, Porus, as has been stated, kept his entire army concentrated ready for an offensive defensive in any direction.

The Turks, on the other hand, failing to realise the danger that threatened them till the last moment, had dispersed their available forces over widely distributed fronts, and were never able to concentrate.

Again, Alexander trusted entirely to surprise, while Maude was prepared to fight, and covered his crossing by fire from artillery and infantry.

Alexander, apparently, made no such preparations, though it is open to doubt whether batteries of the artillery of that day, posted on the island, would have been within effective range of the far shore.

Both Alexander and Maude relied on distracting the enemy's attention by attacks in rear.

Alexander ordered his reserves to cross the river and attack the enemy as soon as the battle had become fairly joined. A similar rôle was played on the Tigris by the attacks on the Sunnaiyat position by the VII Division.

Fortune, they say, favours the brave, and she certainly favoured Maude this day. Had Khalil Pasha taken a leaf from Porus' book, and kept his troops concentrated, there might have been a very different tale to tell. As it was, he had no large force at hand to repel the crossing, and, once the British were across, the Turks were attacked and beaten in detail.

A study of these operations emphasises the importance of the two great Principles of War, namely—

- (a) Personal reconnaissance.
- (b) Surprise.

## MILITARY NOTES.

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### AUSTRIA.

#### *The War Minister.*

On the formation of Herr Schober's Cabinet at the end of September, Herr Vaugoin was re-appointed War Minister. He issued the following special Army Order on 28th September :—

“ To all Members of the Federal Army and the Army Administration.

For the eleventh time the National Assembly has appointed me War Minister. Simultaneously it has elected me to be Vice-Chancellor.

This dual appellation is no accident ; its reason is to show clearly that in these difficult times those ministers stand in the forefront whose duty it is to guarantee to our State order, security and peaceful development.

My programme is known, I have nothing to add to it. The same work will go on—for the honour of the Austrian Federal Army, for the welfare of our beloved Fatherland !”

#### *Soldiers' Councils.*

This year's elections to the Soldiers' Councils show that the endeavours of the War Minister to rid the army of Social-Democratic elements have met with further success. According to figures published recently, out of a total of 19,336 voters, 13,006 voted for the Wehrbund, the Association of the moderate, or Christian Socialist, party, and only 3,324 for the Militarver band. Compared with last year the former association has gained some 4,000 votes, whilst the latter has lost nearly 3,000. As a result the Wehrbund has won 38 mandates from its rival. One thousand more than last year abstained from voting from various causes.

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### BELGIUM.

#### EXERCISES FOR THE CADRES IN 1930.

The General Staff has drawn up its programme for the cadre exercises in 1930. These exercises will take place in the areas of corps, and in those of the infantry divisions, cavalry divisions and infantry regiments.

On the other hand there will be no staff rides, or cadre exercises for attached troops to the various army, corps or divisional commands.

Regimental cadre exercises will be held in the immediate vicinity of the headquarter staffs of the regiments concerned, except the aviation cadres.

The cadre exercises of the army corps, infantry and cavalry divisions will last for 4 working days (journeys to and fro not included). They will be carried out between the Monday and Saturday of a week of six working days.

*Frontier Defence.*

The subject of France's intention to devote from  $2\frac{1}{2}$  to 3 milliards of francs, spread over several years of extraordinary budgets, as a preliminary expenditure on her system of eastern frontier defence which, according to *Le Temps* of 4th October, is to be completed in 1935, is discussed by the *Independence Belge* of 5th October. This journal comments, in a disparaging tone, on the effort being made by Belgium to put her own Eastern Frontier in a state of defence, without which the Northern Frontier of France will still, as in 1914, be open to invasion.

*The Independence Belge* states:—

Up to date only 33 million francs (of which 10 million were voted in 1928) have been placed at the disposal of the Engineers for the defence of our Eastern Frontier. This sum does not amount to one-fourth of the 3 milliards spoken of by M. Painlevé. It would appear that the Fortification Commission and the General Staff are making but miserly provisions for dealing with a problem of capital importance for fear of being accused of wasting public money.

At the present moment the General Staff is content with repairing the Liège Forts and constructing a new work at Lixhe (just north of Visé on the Meuse) at the spot where in 1914, the lack of a suitable Fort allowed the Germans to cross the Meuse out of range of the Belgian guns.

The 8 Forts on the right bank will therefore be repaired and more or less transformed by means of modern armaments. Forts Barchon and Evegnée will soon be finished, and after that Chaudfontaine and Pontisse will be dealt with. (*Note.*—This is not quite correct. The Fort most advanced in the work of repair is Fort Fleron, whilst Fort

Pontisse is on the left bank of the Meuse. There are also 6 Forts on the right bank and not 8).

This work of putting the Forts in order will be completed by creating concrete M. G. emplacements, command posts and subterranean telephone communications. At the same time work is in preparation for water supply and fresh air inductions to the Forts.

We are informed that the Commission responsible for the fortifications of Liège has terminated its plans which have now been adopted.

Nothing is yet decided on about the Namur Fortress. The question of demolitions is also being studied. Masonry constructions, *i.e.*, forts, tunnels, viaducts, &c., will be prepared for mines, and the problem for blocking roads of approach will be provided for throughout the frontier.

The whole will cost approximately 50 millions of francs—in reality very little.

#### *Uniform of the Military Air Service.*

With regard to the proposal to reorganize the military aviation as a separate arm, it is reported that this will be laid before the Chamber of Deputies by M. de Broqueville shortly. The *project de loi* in question will allow for a special uniform for the officers of the aviation, modelled very much on that of the British Air Force. It is to be of blue cloth, *Coupe anglaise*, brass buttons, cloth belt and buckle. Soft blue shirt and collar.

#### *Admission to the Belgian Staff College, 1930.*

On the 1st October, 1930, the 56th Division of the *Ecole de Guerre* will commence.

Twenty officers only will be accepted. The examination for admission will take place on 11th July, 1930.

### NOTES ON MILITARY REVIEWS.

“ BULLETIN BELGE DES SCIENCES MILITAIRES.”

September, 1929.

Published by Impr. Typo. de l'Institut Cartographique Militaire,  
Brussels.

Price, 1 Belga.

1. *Operations of the Belgian Army during the Campaign 1914-18—(Continued). The period of stabilization ; Belgian Army on the front Nieuport Canal—Furnes—Steenstraat (11th March, 1915, to 5th June, 1916). C.—Period from May to December, 1915.*

*General situation from May to December, 1915.*

This chapter starts with a description of the effect of the German campaign in Russia, and shows how this compelled the former to maintain a purely defensive attitude on the western front, which the allies seized upon to take the initiative into their own hands and attempt a break-through on the German front.

It was under these conditions that the 2nd Battle of Artois (9th May to 18th June) and 2nd Battle of Champagne (26th September to 6th October) combined with a 3rd Battle of Artois (26th September to 15th October) took place.

These operations resulted in an initial success which was full of promise, but eventually led to no definite results. They did, however, fully occupy the enemy's attention and served as an indirect assistance to the Russians.

On the other hand, the entry of Italy into the war on the 23rd May obliged the Austro-Hungarian forces to deal with a new enemy, which had a repercussion on their pressure against Russia. As against this, the intervention of Bulgaria in favour of Germany on the 5th October contributed to ensure the complete annihilation of Serbia before the end of the year 1915.

Mention should also be made of the Dardanelles expedition, commencing on the 18th March by a naval operation, followed by the landing of a Franco-British expeditionary force on the 25th April, 1915, to the 8th January, 1916, and also the formation, in October, 1918, of an eastern army at Salonica.

After dealing with the effect of these operations in the various theatres of war, the author continues, on pages 189 to 199, to describe the manner in which the Belgian Army occupied the front allotted to them and the minor operations in which they were engaged from May to June, 1915.

On page 200, the writer deals with the circumstances which led up to the combined Franco-British offensive which took place in Artois and Champagne on the 25th September, 1915.

2. *Intelligence Work in the Field.*—(Continued). *Part III.*  
*Centralization and study of information received.* By Colonel Tasnier. Of interest.

This article deals with the work of the intelligence branch of an army in the field (2nd bureau), which in this portion of the work is



limited to the sifting and application of information received about the enemy.

The author subdivides his work in dealing with the following duties of the intelligence branch :—

- (a) Registration and classification of information regarding the enemy (pages 205-206).
- (b) Examination and interpretation of the information received (pages 206-207).
- (c) Organization of the intelligence branch with reference to the class of information received, *i.e.*, whether it deals with the enemy's order of battle, his activities, his intention (pages 208-209).
- (d) Decentralization of the work of the intelligence branch by the chief of the 2nd bureau, by distributing certain portions of the information amongst his subordinates and to the artillery and aviation intelligence officers (pages 209-212).
- (e) Aerial photographs, their objectives and the purposes they serve (pages 212).
- (f) The daily meeting of intelligence officers at headquarters (page 212-213).
- (g) The synthesis, by which is meant deductions to be formed regarding the recent operations of the enemy and the steps to be taken in view of his future activities (pages 213-214).

The chapter terminates with two tables on the co-ordination of military intelligence, showing the class of information, the sources of information, the various intelligence units responsible for procuring the information (page 215-218).

3. *The Survival of a People.*—(Continued). *Part III.—The Austrian invasions of 1914; the victories of Tzer and Koloubara.* By Major Delvaux. Of historical interest.

This rather lengthy chapter deals with the military history of Serbia in its recent struggles against Austria, and leads up to the events which terminated in the murder of the Austrian Arch-duke at Sarajevo and the invasion of Serbia by Austria.

The chapter then deals with the dispositions of the three Austrian-Hungarian armies mobilized on the 28th July, 1914, against Serbia under the Archduke Frederick amounting to 412,000 men, and goes fully into an appreciation of the difficulties which beset Serbia at the beginning of the war.

4. *Certain considerations on the tactical employment of machine guns in the defensive.* By Major Flameng. Of interest.

This is an interesting criticism of the Belgian Army regulations on the tactical employment of machine guns in defence, dealing chiefly in the body of the chapter with the distribution and allotment of machine guns in the various echelons of defence. The writer summarizes his article, and is of opinion that formerly the divisional machine-gun battalion formed a reserve of infantry fire placed at the disposal of the infantry divisional commander, which he employed much in the same way as his artillery.

According to present ideas, the machine gun battalion is, in defence, entirely dispersed and utilized to re-inforce the infantry regiments of the division, and it would appear to some people that the day of machine gun battalions is over.

On the other hand, it is still considered necessary that the Infantry Divisional Commander should have at his disposal a powerful reserve of machine gun fire.

In the opinion of the writer, this would be best insured by creating regimental machine gun companies apart from the battalion machine gun companies.

In the writer's opinion, the regimental companies should be organized into three platoons of machine guns and one platoon of infantry (for protective purposes).

Under the present organization of the Belgian Army, and with the means that are at their disposal, the decentralization which now forms the basis of the utilization of divisional machine gun battalions, is logical and necessary.

In conclusion, the writer states that in France the infantry divisional machine gun battalions have been done away with, and that the majority of French military writers are deploring the fact and demanding that they be re-established.

5. *Infantry Observation, Part III.—Approach March and combat.* By Captain Wanty. Of some interest.

This is a tactical exercise illustrated by a map at the end of the chapter. The general idea is as follows :—

An infantry division, forming part of a force with other formations on either side, receives orders to occupy a river at the end of the day's march. The foggy weather has rendered aerial reconnaissance impossible. Two days previous to the march of the division in question,

the enemy has been reported 18 or 20 km. distant. The work is divided into two parts—

- (a) The methods of observation and reconnaissance to be used during the approach march of the division.
- (b) The methods of observation and their execution on first contact with the enemy.

The writer's conclusions in these problems of tactical reconnaissance are as follows:—

- (i) Whatever is the strength of the unit concerned, and the importance of the tactical situation, the observation troops fill a double rôle, *i.e.*, observation of the battlefield, and in the second place the obtaining of information required for the commander's personal information in order that he may rapidly put his weapons to the best possible use.
- (ii) The system of observation should be spread along the front and echeloned in depth.
- (iii) It must be insured that such of the units of the divisions, who will eventually have to make use of a complex armament (regiment, battalion and company), should have at their disposal specialists in the art of observation. The smaller units (infantry platoon and section of machine guns) will have to be content with observers who are not specialists.
- (iv) The observation must be continuous and the organization of the personnel engaged on observation work must be thoroughly instructed with this object in view.
- (v) The question of the careful selection of intelligent personnel for the duties of observation cannot be overrated.

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“BULLETIN BELGE DES SCIENCES MILITAIRES.”

OCTOBER, 1929.

Published by Impr. Typo. de l'Institut Cartographique Militaire,  
Brussels.

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1. *Operations of the Belgian Army during the Campaign 1914-18.*  
(Continued). *Period of Stabilization; Belgian Army on the front Nieuport—Furnes—Steenstraat Canal.*  
C.—*The period May to December, 1915.*—(Continued).  
*Request for the Belgians to extend their front.*

On 15th November, 1915, General Joffre asked the King of the Belgians to take over more line, *i.e.*, the left portion of the French

36th Corps extending as far south as Steenstraat on the Yser—Ypres Canal. The request was refused and the motives governing this refusal are given on page 282.

On page 283 and to the end of the chapter are given (1) the general organization of the Belgian plan of defence of their sector, (2) the principles of this plan of defence.

Under (1) is explained on pages 283-285 how three lines of defence were prepared with a supplementary line to the west of Dixmude between Oostkerke, and St. Jacques Capelle. Also a position to fall back on, on the Loo Canal (*vide* map 17 on page 286) should the Belgian Army be unable to hold its forward positions between Nieuport and Labiettehoek.

Again, to counteract the ever present danger of the allies to the south having to withdraw and thus leaving the Belgian Army in the air, a line of defence to protect the right of the flank Belgians was considered necessary and the High Command decided to organize the north bank of the Yser as a defensive line between Labiettehoek to downstream of Stavele, behind which the Belgian troops on the south could establish themselves with bridge heads at Elsendamme and Stavele (*vide* map on page 286).

Under (2) the main principles of defence are set out and it is interesting to study the lines of defence prepared as far back as Dunkirk (*vide* map on page 286) in case of a determined German offensive between the sea and Ypres.

An exposé of the principles of the lines of defence was drawn up by the French General Hely D'Oissel at General Foch's instigation and the conclusions to be deducted from this exposé are given on pages 288-290.

2. *Intelligence Work in the Field*—(Continued.) By Colonel Tasnier.  
(Of interest.)

*Chapter II, Part IV.*

Paragraph 5. The distribution of information.

The writer treats this portion of his work under three headings—

- (1) The spirit under which information is passed on to subordinate commanders. It is the issuing authority who must accept full responsibility for the information which

he hands out. Only information which is really of use need be disseminated.

- (2) The opportunity, or the possibility of exploiting information to the best possible degree, depends on the rapidity with which it is disseminated.
- (3) The form in which information can be distributed, *i.e.*, the daily bulletin of information—the paragraph of information at the commencement of operation orders—tracings of maps or sketches—special studies. These various methods of distribution are discussed on pages 292-294. Paragraph 6. The exploitation of information.

Liaison between the intelligence and the operation branches of the staff permits the watching of the effect of the information disseminated, which in itself constitutes the most important and ultimate aim of the work of the intelligence branch. (Page 295.)

#### Paragraph 7. Outside duties of intelligence officers.

Three special missions devolve on intelligence officers outside their main duties of collecting information :—

- (a) *Liaison duties* with neighbouring and subordinate H. Q.
- (b) *Control* on the part of the G.H.Q. intelligence branch, by means of information being given by the former to the C.G.S. as to the insufficiency of information generally, or the delay in acting on the information received.
- (c) *Search for information*.—Officers of the intelligence branch may be expected to collaborate in person in aerial or ground reconnaissances in which their knowledge of the general situation and of the G.H.Q. intentions would greatly assist the work in general (pages 296-298).

#### Paragraph 8. Particularities relating to the 2nd Bureau (Intelligence) of a Division.

On pages 296 to 297 the writer deals with the intelligence work of a division in the field. This he considers should be more rapid than that of the army corps, but less worked out in detail in view of the nature of the information which the division is able to collect and her limited powers of sifting its value.

*Chapter III.—Methods employed for collecting information in the various units.*

On pages 298-310 the writer deals with the responsibility of each unit for furnishing information, where the duties of the special intelligence officer in the lower formations are analogous to that of the 2nd bureau in the higher staffs. He describes in detail the work of the infantry, the cavalry, the artillery and aviation intelligence officers.

*Chapter IV.—Instruction in peace-time.*

In the conclusion to this work (pages 310-314) the writer, in dealing with the subject of peace-time training in intelligence duties, states that this training should fulfil a double object :—

(1) It should diffuse and maintain amongst the cadres of the various formations the spirit that the enemy is always active, and ensure the knowledge and aptitude that their collaboration demands in the collection of information.

(2) It should train the personnel of the 2nd bureaux of the various staff formations, and also the intelligence officers of the troops in the field in their special functions.

This double rôle can only be attained if, in all tactical exercises of whatever scope, the activities of the enemy are always appreciated and allowed for.

3. *The Survival of a People.* By Major Devaux. (Continued.)  
Of historical interest.

*Chapter IV.—The Serbian Retreat from the Danube to the Adriatic.*

During the year 1915 the situation of Turkey became acute. Closely confined in Gallipoli, she found herself with only 5 reserve divisions and her army generally was in a bad state.

Serbia, who up to date had been neutral, became aware of the massing of Turkish and Bulgarian troops on her frontier, and asked the allies for 150,000 to 200,000 men as reinforcements. Being unable to obtain them she considered the possibility of attacking the Bulgarian Army, which she looked upon as her greatest menace.

Serbia was attacked in September, 1915, by the Germans, Austro-Hungarians, and by the Bulgarians, whilst being abandoned by her ally Greece. She was thus doomed to destruction.

The Serbian Army of 230,000 had to fight against 350,000 Austro-Germans, whilst the Bulgarians mobilized an army of 400,000.

The end of 1915 marked a very critical phase in the allied situation.

The great French attack in Champagne collapsed, the Austro-German troops drove back the Russians on the Dwina, whilst the intervention of Bulgaria on the side of the enemy permitted Turkey being reinforced in men and material.

It is with this tragical situation in face of which Serbia was confronted, that the author deals on pages 325-344.

4. *How to make use of the 7.6-cm. Mortars.* By Captain Philippet.

This article describes the drill and tactical handling of the 7.6-cm., mortar, which is at present the Belgian infantry close support weapon.

The writer deals with the tactics of the gun team under various considerations.

- (1) The platoon with the advance guard.
- (2) Organization of the platoon when in action.
- (3) Choice of position.
- (4) Ammunition supply in the field.

5. *The Battles of Aubers Ridge, Festubert and Loos, 1915.*

This is merely a translation in French of the narrative of these battles, taken from the 4th Volume of the British Official History of the War, compiled by General Edmonds. Further comments are, therefore, unnecessary. In this chapter, only the first two of these battles are dealt with.

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“BULLETIN BELGE DES SCIENCES MILITAIRES.”

November, 1929.

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1. *Operation of the Belgian Army during the campaign 1914-18.*  
—(Continued,) *Period of stabilization—The Belgian Army  
on the line Nieuport Canal—Furnes—Steenstraat.*
- D. *Period from 1st January to 8th June, 1916. General Situation.*

During the first half of 1916, the whole activity on the western front was concentrated round Verdun, until a respite to this savage onslaught on the part of Germany was brought about by the Somme offensive commencing on 1st July, 1916.

On the Russian front, during this period, things were quiet, whilst on the Italian front the Austro-Hungarian troops opened an offensive on 15th May in the Trentino which made little progress.

In the Balkans, the army of the east, created in October, 1915, gradually increased in strength, notably by the reinforcements supplied by the Serbian Army, which latter at this period numbered 300,000 men. However, during the first half of 1916 things were quiet in this theatre of operations.

#### BELGIAN OCCUPATION OF THEIR FRONT.

On 1st January, 1916, the Belgian Army had five divisions on their front. Their dispositions are shown on a map and described on pages 376-378. At this period, the German occupation of the line opposite the Belgian Army underwent a certain reduction of strength.

During the first 5 months of 1916, operations on the Belgian front were reduced to a minimum, whilst the Germans, contented themselves with raids against the Belgian outposts, and heavy artillery bombardments.

On page 397 is described the evolution which took place between May, 1915, and June, 1916 in the method of holding front line trenches, showing how the system of holding a front line strongly was given up, due to the experience gained by the French Army during the battle of Artois in 1915. The method since adopted, was to withdraw the majority of the troops during a heavy bombardment to lines further in rear, and to bring them forward again only at the moment of the enemy's attack. This evolution of tactics is fully discussed on pages 379-383.

#### 2. *Certain considerations on Artillery preparation.* By Colonel Willemaers. (Of interest.)

In this study the writer envisages the artillery preparation immediately preceding the infantry assault. The principal points dealt with are the length of the preparation and its principles of execution.

The writer divides his work into the following parts :—

1. *What is the object to be attained by this preparation?* Pages 384-385.



The answer is that it fulfils a double purpose :—

- (a) To neutralize the enemy's resistance, which the infantry is unable to do with its own fire power.
- (b) To allow the infantry to reach a starting line sufficiently near its objective, whilst still under the protection of its own artillery.

2. *What would be the time length of the Artillery preparation?*

The writer is totally opposed to a too short preparation, which tempts the covering artillery to fire over the target, for fear of hitting its own infantry, and because it is ineffective and does not allow of the infantry reaching a suitable starting line. A normal preparation in the writer's opinion would be not less than 20 minutes.

On pages 388-391, the writer deals with the guiding principles in carrying out a preparatory artillery barrage. This portion of the work is subdivided into—

- (a) The material used and the ammunition.
- (b) How the barrages are conducted.

The article terminates with a table showing the problems confronting the artillery commander, the dispositions to be taken, the time-table of the various descriptions of artillery fire, and the intensity of the artillery fire.

3. *A day on the defensive.*—(Continued.) Translated from the German Review "*Kriegkunst in Wort und Bild.*" Of interest for indoor instruction to small units.

Part VIII deals with the solution of the 20th question set in the August number of the "*Bulletin Belge*," page 129, on a problem of a machine-gun battery coming under fire of gas shells; also the solution of the 19th question set in the July number, page 58, on the same subject.

On page 396 a new question, No. 27, is set on the subject of how to fit new eyepieces to a gas mask which has become damaged in action.

On page 396, the solution is given to the 21st question set in the August number, page 133, on the subject of a battery of artillery firing with aerial observation, and a new question on the same subject, No. 28 is set on page 399.

The solutions to the 22nd question set in the August number, page 135, and to the 23rd question set on page 136 of the same number, on the subject of tank attacks, are given on pages 399-401.

The solutions to questions 24 and 25 set in the October number, pages 321 and 323, on the subject of the fire of automatic rifles and of heavy machine guns, are given on pages 405-412. Two new problems are set for solution on similar subjects.

4. *The survival of a People.*—(Continued.) By Major Delvaux.  
Of historical interest only.

Part V.—*From the Adriatic to Corfu and Salonika.*

The writer in this number traces the tragic history of the Serbian Army in the early part of 1914 in its retreat to Corfu *viâ* the coast of the Adriatic and finally to Salonika.

5. *The principal lessons from the First Aviation Medical Congress.* By Major de Block.

This deals with matters discussed at the First Aviation Medical Congress held in Paris in May, 1929, where delegates from 40 different nations and medical institutions participated. Germany was not represented, but the object of the Conference was to discuss the utilization of the aeroplane as a means of evacuating and rendering assistance to the wounded in war.

On page 430 instances are given of the employment of aircraft on this work by the French Army in 1920 in Syria and Morocco.

The writer, after giving his views on the subject generally, divides his work into the following parts:—

- A.—The class of aeroplane found suitable by the French, page 432. Here we find various types of aircraft suitable for carrying from 1 to 14 patients, and useful information about distances covered from experiences gained in the French Colonies.

On page 435 an interesting study is made on the subject of stretchers best adapted for medical aeroplanes. The Belgians are of opinion that the "Discry" stretcher adopted by the Belgian Army is suitable.

On page 437 the subject of landing grounds in close proximity to the hospitals is discussed.

- B.—The personnel (page 438). Here the requirements and training of the personnel employed in this class of aviation—again based on French colonial experience—is set out in an interesting manner.

C.—The necessity for an international law for the immunity from attack of medical aeroplanes flying under the red cross (pages 439-445).

D.—The possibilities of employing a medical air service in a war on the Continent (pages 445-448). Under this heading interesting statistics are given as to the requirements for a division in aerial evacuation (*see* page 448).

## BOLIVIA.

### BOUNDARY DISPUTE WITH PARAGUAY.

#### 1. *Narrative of Events during 1929.*

*Report of the Commission.*—In accordance with the decision of the two countries to submit their difficulties to arbitration by the Pan-American Conference on Arbitration, then sitting at Washington, a Commission of Inquiry was set up consisting of a U.S.A. Chairman (General Frank McCoy), and one representative from Mexico, Colombia, Uruguay and Cuba. This Commission was to meet at Washington to determine responsibility for the rupture of peaceful relations, but arbitration on the main issue—*viz.*, the delimitation of the boundary—was at first expressly excluded from its terms of reference. Subsequently, both countries agreed to receive the Commission's recommendation on this fundamental question subject to certain conditions. The Commission was able to pursue its labours in comparative peace, only one small fracas in the disputed area giving cause for alarm; this was actually brought on by a request from the Commission for further geographical details about the area in question. The small party of Paraguayans who approached Fort Vanguardia in furtherance of this request was fired on by the Bolivian sentry and returned the fire wounding one Bolivian. Much capital was made out of this event by both sides. The Bolivians took the opportunity of strengthening their troops in the area while both countries continued to import arms from Europe. The Commission reported in September, 1929, making the following recommendations:—

- (1) Bolivia and Paraguay to forget all offences and grievances.
- (2) Both sides to revert to the *status quo ante* the incidents of December, 1928.
- (3) Diplomatic relations to be resumed between the two countries.

- (4) Bolivia to hand back Fort Boqueron to Paraguay and Paraguay to rebuild Fort Vanguardia, which they had razed to the ground, and deliver it back to Bolivia. In addition, all prisoners captured in December were exchanged. Both countries agreed to these awards.

The Commission made the following further recommendations with regard to the fundamental question of boundary delimitation :—

Firstly, the territory awarded to Paraguay by the Hayes Award of 1878 to be excluded from arbitration. This territory is that lying to the south of a line drawn in a westerly direction from the junction of the Rivers Verde and Paraguay (parallel 23° 10') across to the River Pilcomayo.

Secondly, Paraguay, whether the final award is in her favour or otherwise, to cede the port of Bahia Negra with enough ground to form a port.

Paraguay sent an emphatic refusal to these recommendations in view of the proposal to cede Bahia Negra ; in fact, so great was the popular outcry that no other course was possible. She also considered that it would be hopeless to try to arrange matters direct with Bolivia. Bolivia has equally rejected the terms saying that she prefers to treat the matter direct with Paraguay through diplomatic channels. She insists that any arbitration must include the territory involved in the Hayes Award, while Paraguay insists to the contrary.

#### CZECHOSLOVAKIA.

##### APPOINTMENT OF NEW WAR MINISTER.

The Prime Minister, M. Udrzal, who has hitherto been also Minister of National Defence, has resigned from the latter post, which has been filled by Dr. Viskovsky, a former Minister of Justice.

According to a press interview, the new Minister stated that one of the country's most important economic problems was the reduction of military service, but, having regard to the need for increasing the efficiency of the army, this would only be possible when there was available a sufficiently large number of non-commissioned officers, who had served for a considerable period. He added that, as far as Czechoslovakia was concerned, there was no question of the establishment of the army on a militia basis. A militia had no economic or military value as compared with a standing army, and the former enthusiasm in the country for a militia system had practically disappeared.

## FRANCE.

## RAISING OF THE AGE OF THE ANNUAL CONTINGENT.

A decree published in the *Journal Officiel* of 14th September, lays down that only those men born between 1st February and 30th June, 1909, will be called up in April, 1930, and those born during the last 6 months of 1909, in October 1930.

The effect of this will be that, after October 1930, the raising of the age of conscripts to 21 will be definitely realised.

## CONSEIL SUPERIEUR DE LA DEFENSE NATIONALE.

General Serrigny (Military Governor of Lyon), has, at his own request, been allowed to resign his appointment as Secretary-General of the *Conseil Supérieur de la Défense Nationale*. He has been succeeded by *General de Brigade*, L. A. Colson, the Assistant Secretary-General. *Capitaine de Vaisseau* Riou has been appointed Assistant Secretary-General.

## MILITARY CABINET OF THE MINISTER FOR WAR.

Monsieur Maginot, Minister for War, has nominated General de Division Georges as head of his military cabinet. It is a most popular appointment and an excellent one. General Georges is well known in the army and has had a great deal of experience in the field. Leaving St. Cyr in 1897, he joined the Algerian forces and took part with them in the Saharan operations and in Morocco, becoming a great friend of Marshal Lyautey, and, subsequently, entering the "Ecole de Guerre" out of which he passed with distinction. During the Great War he served on the staff of the 2nd Army and then commanded a battalion; he was then sub-chief of the staff in the "Armée d'Orient," and, subsequently, returned to the French front on Marshal Foch's staff on which he remained until the end of the war. After filling various semi-military appointments until 1925, he proceeded with Marshal Pétain to Morocco and performed the duties of chief of staff, being appointed in October, 1928, to the command of the Algerian Division.

## THE DEFENCE OF THE COLONIES AND OVERSEAS TERRITORIES.

1. A Presidential decree of 24th August, 1929, based on a report of the Ministers of War, Navy and the Air, lays down the relative duties, as regards colonial defence, of the Governor-General or Governor of a colony, and the military and naval commanders of forces

attached to that colony, permanently or temporarily. It would appear that this decree has been found necessary owing to the fact that the previous ordinances on the subject were somewhat hazy as to the distribution of responsibility, especially as to the responsibility of the Governor-General or Governor as regards the actual military measures to be taken in case of necessity.

2. Briefly the decree is to the following effect:—

*Article 1.*—The Governor-General or Governor is responsible for the internal and external defence of his colony under the Ministry of the Colonies. He receives general *directives* from that ministry as to defence, and for that purpose disposes of the land and sea forces affected to his possessions; these forces are under the direct command of the officer commanding troops and of the senior naval officer concerned.

*Article 2.*—The internal relations of these three authorities are established by Articles 3 and 4 of the decree.

*Article 3.*—Under the high control of the Governor-General or Governor, operations carried out by the military forces are under the exclusive orders of the officer commanding troops, and those of the navy under those of the senior naval officer. In the case of combined operations, they would normally be under those of the officer commanding troops, who will take the advice of the senior naval officer on all matters connected with the navy. In exceptional cases when naval interests predominate, the Governor-General may decide to delegate the command to the senior naval officer.

*Article 4.*—All preparations for defence will be made by the officer commanding troops, assisted by the senior naval officer, and in the case of subordinate work, the military, naval and *points d'appui* authorities will prepare their own schemes. When drawn up, the general plan of defence will be submitted to the *Conseil de la Defense de la Colonie* and then to the Ministry of the Colonies for approval.

*Article 5.*—The Ministry of the Colonies will consult the Ministry of the Navy as to their views, and if approved, return the plans to the Governor-General or Governor.

*Article 6.*—The cost of defence will be split among the appropriate budgets.

*Article 7.*—Independent naval craft, or forces, temporarily in or near any colony, must co-operate with the colonial authorities and the commander of the *points d'appui* if necessary, and preparations for so doing should be arranged in peace time.

*Article 8.*—The provisions of this decree nullify all previous enactments on the subject.

#### RE-ORGANIZATION OF THE ARMY.

*An article by General Debeney in the "Revue des deux Mondes."*

In the September number of the *Revue des deux Mondes*, General Debeney, the Chief of the General Staff of the French Army, made a full appreciation of the military situation of France to-day, in an article entitled "A national or a professional army." The article is really a defence of the reforms which have recently been introduced, for which he himself is largely responsible.

In Part I, entitled "Professional Army," General Debeney begins by painting a picture of the German Army of to-day, and the facility with which that army can be expanded rapidly to one of considerable dimensions, more or less secretly. He envisages how on the declaration of war, or even before, it would be in a position to attack a potential adversary, overwhelm his covering force, and penetrate deep into his territory. As a result of this, subsequent battles would be fought on the territory of the invaded nation. It is therefore not to be wondered at that many people view with misgiving the existing organization of the French Army as opposed to that of Germany, which they assume is a pattern of what a modern army should be.

The author then asks his readers to consider facts rather than theories, and proceeds to quote figures, based on General Staff calculations, to show the minimum requirements of France to enable her to defend her frontier effectively. The total is set down as 300,000 men, or 400,000 if it is intended to act offensively by taking the initiative.

General Debeney then goes on to examine the resources at France's disposal to enable her to create the "Special Army" which so many would prefer, always ready "for attack as for parade." He gives reasons why it is impracticable to recruit sufficient numbers of volunteers for a professional army of 300,000. The bulk of these would have to remain in the ranks, and the money required to make such a proposition attractive, in the matter of pay and pensions,

would present an almost impossible financial burden on the nation, which, in addition, has to maintain a large force of regular non-commissioned officers for its commitments overseas. He then discusses the alternative of dividing the annual contingent into two portions, the one which will do a long term of service and be stationed on the frontier, and the other which will only serve for a very brief period and remain in the interior. His objections to this are, that it is contrary to the long-established practice in France of equality of service; that it will be very difficult to arrive at a just method of selection; that it cuts the French Army in two in such a way that the less important, or short service portion, will inevitably be made to suffer financially, and in the provision of material, at the expense of the other; that the bulk of the army will be the short service contingent, which will require a considerable time to train before it is fit to take the field; and finally, that it exposes the nation to the risk of having its forces annihilated successively in parts. His epithets for the "two armies" are *Armee qualitative* and *Armee quantitative*, and he goes to some length to prove his objections to this form of sub-division.

General Debeney then turns to the overseas army, and makes a short comparison of the commitments of Great Britain and other Powers with those of France. He is pained by the attitude assumed at Geneva by other countries in bracketing France's home army and overseas forces under one head, and hopes in the future to make the position more clear by issuing the Budget for each in different parts. (N.B.—This has been done in the case of the *Project* for 1930.)

## *Part II.*

Part II of the article deals with the National Army, and is, in fact, an explanation of the system and organization which has been introduced by the passing of the new laws. He begins by saying that the active army is primarily an instructional organization, and a cadre for the covering force; it can no longer be an exclusive instrument for absorbing the reserves." He then goes on to consider the increase in material, and, referring to a statement sometimes made that armies have become solely mechanized forces, says "an obvious exaggeration, if we consider that inert material can only be of value in the hands of the men who produce it, serve it, protect it and supply it." He considers that with the introduction of new weapons, and the greatly increased equipment of all arms, the material to be placed



in the field at the beginning of a war will be at least four times what it was in 1914. He points out that industrial mobilization works too slowly of itself to provide what is necessary, and that in consequence very large stocks of all sorts have to be kept in peace. This requires an army of men equivalent to several divisions, for care and maintenance purposes only. Under the three years' service rule, this might be undertaken by military personnel, but under the one year system it is manifestly impossible. The one year rule is the direct consequence of victory. The sacrifice of military service had to be reduced, and only the sanctions and safeguards of the Peace Treaty has made this possible. The 18 months' term introduced in 1923 had been a failure, and this, coupled with the unexpected campaigns in Morocco and Syria, had demonstrated the utmost importance of creating permanent personnel. To counter-balance the extra expenditure involved, it had been found necessary to decrease the number of formations, and reduce the term of conscription to one year. This solution, however, was only feasible if the soldier was free during his year of service to devote his entire time to military duties, and by the creation of a sufficiently large professional cadre to train him. The fixing of the age of enlistment at 21 years is described as a measure of social security and military foresight. With regard to the Colonial Army, this has now been doubled and an expeditionary force formed, which further relieves the home army of one year recruits from having to take part in small wars overseas.

The present system of distribution of the army, and the method of mobilization in portions of 20 divisions, is then explained, and in this connection General Debeney points out that in 1931 it will be possible to call out several classes of reserves simultaneously and group units in their war-time formations. As regards the *Couverture*, this force of 20 active divisions will take from 4 to 5 days to move to the frontier, owing to the limited capacity of the railways, and these 4 or 5 days may be of vital importance. During this period there are only the fortresses, now being reconstituted, to hold the enemy at bay. A solution has therefore been adopted by Parliament whereby the three youngest classes of the reserve, known as *Disponibles*, can be called up as a whole, or in part, and wherever they are required on the mere threat of war, provided that Parliament and the League of Nations is informed of this preventive measure. General Debeney here makes the disclosure that these reservists, called up to tide over

the 4 or 5 first days, will await the arrival (presumably on the frontier) of the bulk of the 20 divisions of the covering force. (It would appear from this that the *Disponibles* belonging to the divisions stationed on the frontier will be the very first reservists to be called up.) The author here makes it quite plain that France must reserve to herself the right of being able to do this, in order to be able to have a covering force ready at a given moment. The only alternative would be to re-open the question of the duration of military service with the colours.

### Part III.

Part III is headed "The Great Solution," and is really an appreciation of the army of to-day, as reorganized, dealing more particularly with the type of war it is fitted to wage. General Debeney, in that portion devoted to the short war, paints a vivid picture of the modern battle, laying stress on the fact that the vast and varied quantities of material used are the output of the entire national industry. He asserts that the "punch" of Von Seeckt, or air bombardment in mass, inflict severe trials upon the victim, but they leave the greater part of his resources intact, and, if his moral survives, he can organize his resistance. He refuses to credit the axiom that no protective screen can stop, or disintegrate, this form of attack. He hopes the eastern defences of France will not be valueless. Furthermore, if complete success is not at once obtainable, it may end in disaster. He quotes the "Schlieffen plan" as being based upon surprise and aiming at a short war. In dealing with the aims of the creators of modern armies to make for short wars, and the improved material with which they supply these armies, the author goes to some length to show how progress in armament is indissolubly bound up with industry in time of peace. The conclusion is that no one can guarantee a short war or fix its duration.

As regards the value of the units themselves, General Debeney maintains that the division as constituted to-day is self-contained and the best school for combined training—the one incontestable lesson being that success can only be the outcome of the co-operation of all arms. He then goes on to defend the principle of training the recruit in the regiment in which he may have to fight, rather than in instructional centres or dépôts, and stresses the value of comradeship and *esprit de corps*.

The last part of the article is for the most part devoted to a defence of the theory of "a nation in arms." He asserts that the real surprises in war are those of armament, and that the security of the country cannot be handed over to Utopian theories, however attractive. He believes that the day will come when the League of Nations will have evolved a practical means of imposing arbitration, but that day is not yet.

### *Epilogue.*

The epilogue deals with the question of disarmament, and an attempt is made to show the futility of comparisons between the forces of different nations. It is only possible to do this if countries are forced to adopt a militia or, alternatively, a professional army. In France he thinks the militia system, owing to its want of security, would soon lead to the professional army. General Debeney ends by recapitulating the reasons why such a system is impossible for the French. He asserts that his country put up the one constructive method of reducing armament—the famous protocol. He foreshadows, sooner or later, its resurrection.

### PHYSICAL TRAINING IN THE ARMY.

A decree dated 6th November and published in the *Journal Officiel* of 7th November, lays down the spheres of responsibility as regards physical training, of the Under Secretary of State for Physical Training, and of the General Staff.

The Under Secretary is responsible for all such training before and after military service ; for all dealings with unions, federations or clubs, in consultation with the General Staff, for the physical training regulations for use in the army, and for the organization of physical training courses in the army ; for all legal questions, and for the organization of sports as far as the participation of soldiers is concerned.

The General Staff remains responsible for the instruction within the unit. They are both responsible that the instruction given in the army is in harmony with that given before joining, and after leaving.

From the date of this decree, the Under Secretary is charged with administrative responsibility regarding the expenditure of the credits of the War Budget on Physical Training, before and after military service.

*Conseil Supérieur de la Guerre.*

1. A Ministerial Decree of the 3rd October, 1929, amending that of the 23rd January, 1920, and subsequent rectifications, fixed the composition of the *Conseil Supérieur de la Guerre* as follows :—

*President* :—The Minister of War.

*Members* :—The Marshals of France ; generals maintained without limit of age in the first section of the General Staff of the Army, being over 65 and under 70 years of age ; a maximum of 12 *Généraux de Division*, the latter to include the Chief of the General Staff for the time being, and the Inspector-General of Colonial Troops, if the latter is at the same time President of the Consultative Commission of Colonial Defence.

2. The new decree stipulates that the *Conseil Supérieur de la Guerre* may carry out its deliberations either in a committee or commission appointed from its constituted members, or as a whole, the object of this being to enable the committee to prepare and advice on the subject matter for discussion prior to its submission to the council as a whole.

3. The following points arise in connection with these changes :—

Prior to this decree, important questions of principle were often brought forward and settled by the council without adequate preparation, with the result that, in practice, far reaching decisions were arrived at with insufficient study.

In view of the fact that military problems, especially those of a technical nature, have now become so complicated, the change effected must be advantageous.

A certain amount of criticism in the press and military circles is prevalent on the subject of the general attributes and responsibilities of the *Conseil Supérieur de la Guerre*, which the new decree has done nothing to elucidate. For instance, the exact relations between the General Staff and the *Conseil Supérieur de la Guerre*, which is, strictly speaking, a purely consultative body, remain obscure, especially as regards whose views are predominant in the case of an important or contentious discussion arising. Again, the Vice-President of the *Conseil Supérieur de la Guerre* (at the moment Marshal Pétain) is recognized as the probable commander of the army in time of war, and therefore, for many reasons, his attitude or

his influence in the Council can hardly fail to be of a predominant nature. Apparently it is considered that these points should be clearly laid down, and that the organization of the Higher Command of the army as a whole needs careful scrutiny.

*Uniform.*

The following modifications as regards uniform form the subject of a ministerial decree :—

1. In future, all officers in full dress, or in campaigning kit, will wear the low collar on the same lines as our own, the only difference being that the point of the collar will bear the crest or device of the arm to which the individual belongs. In campaigning kit, a collar of the same colour as the shirt will be worn, and the white collar in full dress.

2. In campaigning kit, the *adjutants* will wear collars exactly on the same lines as officers, but in full dress they will wear a double collar closing with hooks and eyes in front and a false white collar fastened inside. The ordinary shoulder straps of the *adjutant* will be replaced by gold or silver braid epaulettes interwoven with red.

3. The tunic with the new form of collar will be obligatory for all officers from 1933, and for officers joining after the date of the decree, immediately.

As regards *adjutants*, they will be permitted, in campaigning kit, to wear old coats with the walking out collar, or those specified for officers and *adjutants*, at will.

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“ REVUE MILITAIRE FRANCAISE.”

August, 1929.

Published by Berger-Levrault, Paris. Price, 5-50 francs.

1. *The Anti-aircraft Defence of Higher Formations.* By Lieut.-Colonel Vauthier.

The author's conclusions are that today a formation must be equipped with special anti-aircraft weapons. In time to come, it will be possible to transform all the field guns into anti-aircraft artillery which will also be able to do anti-tank work, and even carry out a

certain amount of ground shooting. As regards small calibre weapons (.37-mm. machine guns, &c.) these should be adapted for anti-aircraft purposes at once. Eventually the organization and allotment of artillery will be as follows :—

(a) In the division—

A *groupement* of field guns consisting of 2 *groupes* ( for anti-aircraft, anti-tank and ground shooting).

A *groupement* of light howitzers.

A *groupement* of heavy howitzers.

(b) In the corps—

A *groupe* of field guns (for anti-aircraft, anti-tank and ground shooting).

A *groupement* of heavy guns.

A *groupement* of heavy howitzers or mortars.

(c) General reserve—

Regiments of heavy anti-aircraft artillery.

2. *The Saharan Boundaries of French West Africa in 1929.*  
By Commandant Cornet.

After a description of the country north of Senegal from the Atlantic to the frontiers of the Egyptian Soudan, and of its inhabitants, the author gives an account of the activities of the raiding bands of tribesmen who operate in this district, and of the steps taken to deal with them. He shows how the increasing use of wireless and of motor transport is making it every day less difficult to round up such raiders.

3. *The French Artillery, 1914-18.* By Lieut.-Colonel Aublet.

A lecture given to officers of the Swiss Army in February, 1929. By September, 1914, the French realised that all their artillery lacked range, that they were inadequately provided with heavy artillery, and that they were very short of ammunition. There were only 500 rounds per gun left after the battle of the Marne. Statistics are given showing the results at various dates of the efforts made to overcome these deficiencies. The evolution of the system of artillery command is also briefly described.

## NOTES ON MILITARY REVIEWS.

"REVUE MILITAIRE FRANCAISE."

September, 1929.

Published by Berger-Levrault, Paris. Price, 5.50 francs.

1. *Mechanization of Close Range Weapons.* By General Chedeville.

A wordy but interesting article beginning with a historical account of the "knight in armour" followed by suggestions as to the characteristics of the present day tank. The author considers that the maximum sized tank for practical purposes would be one of 600 tons, with armour 25 cm. thick carrying one 155 mm. and three 75 mm. guns; the minimum sized tank which could carry out its tactical rôle would be one of 20 tons with 30 mm. armour, a speed of 15 to 18 kms. per hour, and an armament of one short 75 mm. gun or one 47 mm., or two machine guns in a turret. Such tanks should be used in close co-operation with the infantry.

2. *The Capture of Neuville Saint-Vaast.* By Commandant Lefranc.

A description is given of the operations of the 29th and 5th French divisions, from 9th May till 9th June, 1915, on which date Neuville St. Vaast was captured after heavy losses. Owing to the strength of the German position both north and south of the village, it was inevitable that Neuville St. Vaast should be attacked frontally. As the result of the attack, the higher command changed its plans for the autumn offensive and decided that the main theatre should be in Champagne, as in that country there were many fewer villages and woods which the enemy could turn into strong points.

Thus originated the doctrine that an attack should be reinforced where it was making most progress, and not where it was held up.

3. *The French Artillery, 1914-18.* By Lieut.-Colonel Aublet.

This final instalment deals with the employment of the artillery. The various methods used are described and the density of guns and weight of ammunition used in various attacks are given. In conclusion, the author points out that, though the lack of liaison between infantry and artillery and the absence of artillery preparation before an attack were faults which were soon remedied, it was not until 1917

that surprise and neutralization became important factors in artillery tactics.

4. *Mountain Warfare.* By Captain Tourret.

After describing the war in the Adamello and the Dolomites, the author draws the following conclusions:—

- (i) Fighting at high altitude never greatly affected the war ; the decisive battles were always fought on the plains.
- (ii) Nevertheless the high altitudes cannot be left to look after themselves.
- (iii) Operations on a comparatively large scale were only possible owing to the system of supply by a network of wire ropes.

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“ REVUE MILITAIRE FRANCAISE.”

October, 1929.

Published by Berger-Levrault, Paris. Price, 5-50 francs.

1. *From Liao-Yang to Mukden.* By Colonel Desmazes.

This final instalment describes, at length, the engagement at Sandepou and the battle of Mukden. It is interesting to note that both sides decided at the same moment to take the offensive, and both intended to attack on the right. However, Kuropatkin conformed to the disposition of the enemy instead of trying to impose his own will.

The author concludes by drawing various lessons both tactical and strategical. First the extraordinary increase of fire power compared to previous wars made the use of ground of paramount importance, and forbade the employment of troops in close formation. From a strategic point of view, the long single line of railway on which both sides were dependent, restricted their power of manœuvre, as neither side dared away from it. Finally, the Japanese victory was due more than anything else to the undoubted superiority of the Japanese commanders.

2. *Mechanization of Close-Range Weapons.* By General Chedeville.

The writer shows that tanks cannot replace infantry, as they cannot hold a position ; they can, however, enable large economies to be made in the use of assaulting troops. It is considered that the advocates of the small tank have failed to appreciate modern fire power, and that it is essential for tanks to be fairly heavily armoured.



This instalment concludes with a discussion of the tactics to be employed in a tank *v.* tank battle.

3. *A Concrete Example of Tactics.* (The manœuvre of a corps to outflank and attack the enemy). By Lieut.-Colonel X.

A scheme based on the action of the 9th German Corps on the left of Von Kluck's Army on 7th, 8th and 9th September, 1914, with a suggested solution.

The suggested solution is discussed clearly and at length. This article is well worth reading by those who wish to see the clear and logical way the French military mind works.

4. *The Soviet Army.* By Captain Malaraïson.

A description on broad lines of the military system of Soviet Russia. Captain Malaraïson considers the army well organized and well trained, though its political character might, and probably would, lead to disaster in case of defeat in the field, or political trouble at home.

## GERMANY.

### GENERAL VON SEECKT'S BOOK "DIE ZUKUNFT DES REICHES."

Generaloberst von Seeckt has followed up his "Gedanken eines Soldaten" of last year with a more politically-minded work entitled "Die Zukunft des Reiches," published on 1st November, last, which deals with Germany's future.

In his introduction, General von Seeckt professes to pose neither as a prophet nor as a dictator of arbitrary programmes; in the subsequent eight chapters he analyses in a lucid and masterly style not only the various problems which confront the "Reich," but also the social, economic and political factors which underlie its future development. Seeckt's handling of constitutional as well as of economic principles is sure and sound. Without allowing himself to be entangled in a web of detail, he skilfully sketches the main outlines of each problem, and boldly indicates the policy he advocates to reach the objective. Above all he insists that the future of the "Reich" must develop in accordance with its own national instincts, not from ideas borrowed abroad; Italian Fascism, English parliamentary methods, Russian Bolshevism and French centralization are all equally unsuited to the German temperament.

In his first chapter the author discusses the basic foundations of the State : agriculture, industry and commerce. German agriculture is definitely backward, and must in the national interests receive more encouragement from the State. American methods might with advantage be copied, but the only real hope of improvement lies in the direction of rationalization, standardization and co-operative effort. Everything must be subservient to the main object, namely to render Germany self-supporting as regards essential foodstuffs.

The main danger confronting German industry to-day is its tendency to come under foreign control. The modern idea of horizontal trusts of international dimensions is fatal to national interests and must be combated if necessary by State intervention. But this intervention must not be overdone, or it will develop into State Socialism and hamper private enterprise. The great economic problem for Germany to solve is how to build up again her national wealth, in the face of the burden on industry involved by the "tributary payments resulting from the lost war." Here again there looms the danger of over-indebtedness to foreign capital. The individual must be encouraged to save without the fear of seeing his savings exhausted by excessive taxation. "A wealthy State with penniless citizens is not the object by the antithesis of economic development."

The chapter on social problems is full of clear thinking and vigorous logic. The author points out that although in prosperous times a State can afford to be generous in social works, it may be forced to curtail these when times are hard. The object to be attained is the greatest possible benefit for the whole nation, not the equal prosperity of each individual, which is utopian and impracticable. Another guiding principle is that the citizen must not expect to derive his prosperity from the State. It is the State which lives on the prosperity of its citizens. Certain social services are incumbent on the State, especially as regards the aged, the infirm and the temporarily unemployed, child labour, hours of labour, &c., but too much reliance on State aid tends to undermine the will to work, which is the basis of all social development. If social benefits can be based on the principle of mutual assistance in emergency, they at once assume the character of social comradeship instead of State charity. The author issues a warning against State interference in industrial conflicts, but if the State does intervene it must be guided by

economic, not political, consideration. The advocates of State Socialism must realize that their ideals are merely tending towards Bolshevism, which in its Russian form is far more than a social movement, it is a religion; it has no principles to be understood, it has only dogmas which must be believed."

From social principles the author proceeds to discuss the relations of the State to such ethical tasks as religion, education, science and art, charitable institutions and the judicature. Each theme is reviewed sanely and broad-mindedly. "Tolerance," he points out, "is a characteristic of those governments which feel themselves strong; intolerance is a sign either of internal weakness or of a bad conscience." While claiming a high place for the Prussian system of State education, he admits that it may not be equally well adapted to Masuria and to Württemberg, and that a village school in Pomerania requires different men and other methods than the Berlin Board School.

Turning next to the form of government most suited to the Germany of the future, General Seeckt finds himself on more difficult ground, and his conclusions will certainly arouse dissent, not least in his own country. Though professedly an advocate of "Reichseinheit" (administrative unification of Germany), it must be of a kind to his own liking, with the predominance of Prussia definitely acknowledged—"the one German State which has been able to win new ground for Teutonism," though he candidly admits that Prussia "kann nicht immer sympathisch sein." He roundly abuses the Weimar Constitution as being a weak and make-shift effort at unity, based mainly on hatred of Prussia. He is, however, right enough when he criticises the financial methods of the present Federal system, for, as he points out, the individual States tend to spend recklessly the "pocket-money" allotted to them by the "Reich," as they have no responsibility as regards collecting it. The present German parliamentary system and proportional representation are also condemned, but his criticisms in this respect are not very constructive.

The chapter devoted to police and armed forces will probably be scanned with the greatest interest, but actually it is the least illuminating in the whole book. The necessity for decentralizing the police force and centralizing the military administration of the "Reich" is insisted on, and the employment of military force in aid of the civil power is dealt with. We learn nothing new, however,

about his ideas on army organization, a disappointing omission, for nobody could have been more interesting on this subject than the man who created the "Reichsheer." He avoids all discussion as to whether a professional army or a nation in arms is the better military organism, and contends himself with several pages of platitudes regarding the rôle of a professional army in conserving the military traditions of the country.

The book concludes with two rather nebulous chapters on the duties of the citizen and of the head of the State. The latter must be a kind of a benevolent despot, rising superior to party politics and personal feelings. It is possible that modesty forbade the author to enlarge too definitely on this subject, as he is frequently mentioned as a future candidate for the presidency of the "Reich."

## GREECE.

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### RECRUITING FOR THE ARMY.

#### *Terms of service.*

Every Greek must serve in person in the army, unless he is prevented from doing so by ill-health or has been sentenced for crime by the civil power. Military service occurs between the 20th and 50th years of age and is divided into service in the active army, and service in the reserve.

#### *Calling up and enlistment of conscripts.*

Service in the active army is fixed at 18 months for all arms, except that certain individuals, who are partially exempted, only require a period of training of 4 months. Compulsory leave may be granted up to 3 months during the 18 months' training.

The Minister of War can call up the conscripts of the annual census altogether or in part during the year in which they have completed the 20th year of their age, or during the following year.

#### *Selection of conscripts.*

The Minister of War fixes each year the annual quota of conscripts to be called and to be distributed throughout the army. The selection for each arm is effected by a special committee. The men selected for the different arms are then sent immediately to the units to which they are allotted.

*Reserves.*

Reserve troops consist of Series A and B. Series A comprises the men who have fulfilled their military service and who belong to the twenty classes immediately preceding the last two classes called up for the active army. Series B comprises the men who belong to the previous eight classes.

For example, in 1929, Series A cover the year 1908-1927 and Series B 1900-1907.

In the reserves are also included those who have not served at all in the army or who have served less than three months before special redemption from Army service. These are rated as non-trained reservists.

*Calling up of residents abroad.*

Conscripts or reservists residing abroad, who are called up, must present themselves within ten days before the nearest Consular authority. The decree calling them up is specially posted in local newspapers by the local Greek Consular authority.

*Voluntary enlistment and re-enlistment.*

Every Greek is accepted for voluntary enlistment provided that—

- (a) He is between 18 and 35 years of age and is physically fit.
- (e) He has never been a deserter or a defaulter.
- (c) He has never been deprived of his civil rights or condemned by a civil court for crime.
- (d) He is of good moral conduct.

The duration of voluntary enlistment is fixed at two years, except during war time, when volunteers serve during the total period of war or mobilization.

## HUNGARY.

### ARMY ESTIMATES, 1929-30.

The Army Estimates for the financial year commencing 1st July, 1929, provide for the expenditure of approximately £5,426,000. Compared with the estimates for the previous year there is an increase of about £644,000, or 13½ per cent. Rather over two-thirds of this increase comes under the heading of "Troops," whilst increased allotments for "Pensions" and "Training and Military Education" account for the bulk of the remaining one-third.

The Minister of War, Count Csaky, in the course of the debate on the estimates, stated that the increase was mainly due to the fact that the strength of the army was being progressively raised by 2,000 men

a year until 1932, when it would attain the quota of 35,000 allowed by the Peace Treaty. He explained that under the enforced voluntary system the cost of the army was necessarily high and it had been found essential to raise the pay of the men in order to obtain sufficient recruits. Count Csaky admitted that the question of increased pay for officers and non-commissioned officers was a pressing one, but, although it had been possible to do a little as a result of reductions of personnel in military establishments, he could not yet hold out hopes of any great improvement in the conditions of officers in view of the financial situation of the country. There were, however, several possibilities of freeing officers from debt, such as by means of long term loans.

The Minister stated that expenditure on material showed a rise of 47 per cent., but this was partly due to the additions to the strength of the army.

Turning to the subject of pensions, Count Csaky explained that the increase was accounted for by the improved scale recently voted and by additions to the numbers pensioned. He regretted that no reduction under this heading would be possible for the next two or three years.

The following, amongst other items, were also dealt with in the speech :—The proposed introduction of a new military code which would correspond with the civil law where ever possible ; the steps taken to improve the general education of non-commissioned officers, who were now obliged to attend upper forms in the elementary schools the fees being paid by the War Ministry ; and the intention to arrange for the repatriation of some 10,000 former Hungarian prisoners of war still in Siberia.

In the course of his concluding address Count Csaky said : “ At present we are unable to make any progress in the question of the revision of the military clauses of the Treaty of Trianon. We should cherish no illusions if we wish to achieve positive results. It is now primarily a question when, from an international point of view, we shall be strong enough to protect our rights with the necessary expenditure of force.” In the meantime they would, for their part, adhere honourably to the Peace Treaty, and they must guard against a repetition of the fatal mistake committed by the Central Powers during the war, of acting without consideration for world public opinion.

## JAPAN.

*Death of General Baron Giichi Tanaka, G. C. M. G.*

On the night 28th/29th August, 1929, Japan lost one of her outstanding military and political figures by the death of General Baron Tanaka, G.C.M.G., the former Prime Minister. The career of this soldier-statesman, a combination not uncommon in Japan, is of particular interest.

Born in 1863 of the famous Choshu clan in Southern Japan, he became a 2nd lieutenant of infantry in 1886; after graduating from the Staff College, he was sent to Russia to study the language, and military system, and spent over three years in that country, between 1898 and 1902. He served with distinction in the Chinese and Russian wars, and became Major-General and Director of the Military Affairs Bureau (roughly corresponding to Adjutant-General in our Army) in 1910. On the completion of this appointment he made a tour through various European countries, and in June, 1914, visited England.

In 1915 he was appointed Vice-Chief of the General Staff with the rank of lieutenant-general, and three years later was nominated Minister for War in Mr. Hara's Cabinet, during the Siberian expedition; he served subsequently in the same capacity in the Takahashi Ministry. In 1920 he was created baron, and the next year was promoted general on his resignation from the post of Minister for War. On the death of Marshal Prince Yamagata in 1922, he became head of the Choshu clan.

The same year General Tanaka paid a visit to the Philippines as head of a military mission, where he created a most favourable impression in American military circles. In 1923 he again became Minister for War, for the third time, in the short-lived Yamamoto Administration, and in 1924 was appointed Military Councillor. His last active employment was to command one of the opposing armies at Grand Manoeuvres that year, and in May, 1925, he was placed on the Reserve List at his own request.

Throughout his career General Tanaka was reputed to have two alternative ambitions: to become Chief of the General Staff, or

**Prime Minister.** Having discarded the former he concentrated on a political career, and within a year of his retirement from the Army was elected leader of the Seiyukai (then in opposition), a political party corresponding approximately to our Liberal Party. In April, 1927, on the fall of the Wakatsuki Government, he was summoned by the Emperor to become Prime Minister, Baron Tanaka himself held the appointment of Minister of Foreign Affairs in the new Cabinet.

His tenure of office synchronised with a period of some difficulty for the Government. The financial situation in Japan was critical and its gravity was accentuated by the fact that economic relations with China were most unsatisfactory, in spite of the efforts of Baron Shidehara, the preceding Minister for Foreign Affairs. To these difficulties Baron Tanaka applied the so-called "positive policy" of the Seiyukai, and there is no doubt that he fully maintained Japanese economic and other interests in Manchuria. His Government took drastic measures to prevent the Chinese civil war spreading into Manchuria, and also despatched troops to Shantung in 1927, and again in 1928, to protect Japanese life and property. Atrocities by Chinese troops against Japanese residents at Tsinanfu, in May, 1928, were followed by a clash with the Japanese forces, which in turn resulted in an anti-Japanese boycott. It cannot be said, therefore, that Baron Tanaka's administration was successful in proving Japanese relations with China.

As Premier, General Tanaka took the leading part in the coronation ceremonies in 1928; and during the visit of the Garter Mission to Japan in 1929 he received the G.C.M.G.

In July, 1929, General Tanaka and his Cabinet resigned under pressure of public opinion, but he continued to lead the Seiyukai Party.

His career can be summed up concisely in the words of the Army Council telegram of condolence, that Japan mourned a soldier "who had served his country on the battlefield, and in the highest offices of the State."

The death of General Tanaka rendered vacant the leadership of the Seiyukai Party. This has been filled by the election of Mr. Inukai, an elderly politician with a reputation for integrity, who has previously held Cabinet rank on several occasions.



## MOROCCO.

## FRENCH ZONE.

*Ambush near Atchana.*

On 8th September the garrison of Atchana (a small post between Bou-Denib and Gourrama) consisting of 60 *Tirailleurs Marocains*, left this post to go in pursuit of dissident tribesmen.

Their advance guard was ambushed, and eventually had to be extricated by armoured cars coming from Bou-Denib. The losses were 22 killed, including one French non-commissioned officer and one French soldier.

*Ambush near Djihani.*

An engagement took place between a band of 150 Moroccan *insoumis* of the Ait-Hammon tribe and a small mixed force of mounted French Legionaries and irregulars near Djihani, 120 miles east of Erfoud towards Colomb Bechar and not far from the Morocco-Algerian frontier, on 14th October. The French troops lost 150 killed and 21 wounded, and the *insoumis* are stated to have also suffered severely. The situation was saved by the arrival of a company of the Legion and a Saharan company, the enemy retiring towards the Tafilelt.

## SPANISH ZONE.

*Programme of public works.*

A Royal Decree was signed on 31st August approving a large programme of public works in the Spanish Zone of Morocco, to be carried out during the period 1929-32.

The total expenditure authorized for this purpose, *i.e.*, 22,900,000 pesetas (approximately £700,000) is allotted as follows:—

Roads	{ <i>Pistas</i>	..	12,600,000
	main roads	..	1,425,000
Camps		..	1,975,000
Bases		..	5,900,000
Telegraph services		..	1,000,000
Total		..	22,900,000

*Proposed improvement of communications.*

The Spanish High Commissioner and Commander-in-Chief in Morocco, in a recent address on the training of the army in Africa,

stated that the following work was to be hastened as much as possible :—

- (1) Improvement of existing lines of communications to the various columns (*Columnas*) from the bases.
- (2) Lateral communication between column camps.
- (3) Forward communications.
- (4) Telephone and telegraph extensions.
- (5) Colonization.

General Jordana added that the President and the Government appreciated the necessity of the work, and had promised their help. Some financial assistance has already been voted for the above to the extent of 22,990,000 pesetas to cover a period of 4 years (1929-32).

### SPAIN.

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PROTOCOL RELATIVE TO THE PROHIBITION OF THE USE IN WAR OF ASPHYXIATING, POISONOUS OR SIMILAR GASES, AS ALSO OF ALL SIMILAR LIQUIDS, MATERIAL OR PROCEEDINGS, SIGNED IN GENERAL ON 17TH JUNE, 1925.

*Notice* issued by the Secretary-General of Exterior Affairs, dated 3rd September and published in the official *Gazette* of 6th September, states that the ratification by Spain of the above Protocol was deposited in Paris on 22nd August, 1929. Spain's ratification is based on reciprocity.

### CAVALRY MANOEUVRES.

Two cavalry brigades of the 1st Region, Madrid, carried out manoeuvres in the Cuenca area during the period 19th to 27th October.

The principal exercise took the form of a cavalry rearguard covering a force retiring on Madrid.

The troops engaged include all the cavalry of the 1st Region. In their absence, the usual Cavalry Guard duties at the Royal Palace were undertaken by mounted Civil Guards.

### *Concessions to ex-cadets of the Spanish Artillery.*

A Royal Order was published on 12th October giving further details of the concessions and facilities to be granted to the cadets of the Artillery College who have been discharged.

The main points regarding these privileges are :—

- (1) The validity of subjects passed by ex-cadets in the Artillery Academy may be confirmed for purposes of study in the different engineering schools and in the science faculties of the universities. These studies may be confirmed, even though the subject matter taken may be differently grouped and styled in these establishments.
- (2) In order to obtain this confirmation, ex-cadets must make their application, through the Ministry of the Army, within the time limit of one month following the publication of this Order.
- (3) The privileges of this Royal Order may only be claimed for one professional career and on one occasion only.
- (4) Degrees obtained by ex-artillery cadets, who have claimed the privilege of this Royal Order, will be equivalent in every respect to those obtained by students taking the the normal course of studies.
- (5) Ex-cadets claiming the confirmation of their subjects, must take their entrance examinations in June or October, 1930, in June, 1931, or at a future date as specified later.
- (6) Ex-cadet candidates will be required to pass certain tests in entrance examinations, in drawing or languages.
- (7) The subjects for which validity may be confirmed will be specified by the Mixed Commission who will communicate their decision to engineering schools and science faculties.
- (8) The advantages accorded by this Royal Order will be applicable solely to those cadets who were deprived of their right to continue their studies in the Artillery Academy. Neither candidates for the Artillery Academy, nor artillery officers, will be entitled to any of these concessions.

*Military Academies.*

The dates of the re-opening of the Military Academies for the 1929-30 courses are as follows :—

Infantry Academy	} .. 15th September.
Engineer Academy	
Intendencia Academy	
Artillery Academy	.. 1st October.
Cavaryl Academy	.. 1st November.

*Note.*—The Cavalry Academy was due to be opened on the 15th September, but, owing to the fact that 40 professors and cadets, 35-

other ranks and 65 horses, have been authorized to take part in a pageant at Barcelona on the 24th October, the re-opening of this Academy was postponed to the 1st November.

*Reduction of Staffs.*

A further reduction of professors has been made. The teaching staff at the five academies comprise :—

Infantry Academy	..	1 major.
Cavalry Academy	..	3 captains.
Intendencia Academy	..	2 lieutenants.
Artillery Academy	..	{ 1 major. 6 captains. 4 lieutenants.
Engineer Academy	..	{ 1 major. 7 captains. 2 lieutenants.

The officers surplus to establishment through this reduction become *excedentes*, with full pay and preferential right to employment.

*Gas Course.*

A six months' course of poisonous and other gases used in warfare is to commence on 1st October at the Central Medical Laboratory, Madrid. It will be attended by four military chemists.

SWITZERLAND.

REORGANIZATION OF THE LANDSTURM.

The Bill for the reorganization of the Landsturm was passed by the Federal Assembly last June and detailed instructions were subsequently issued by the Federal Council (the Cabinet) and the Federal Military Department. It is laid down that the Landsturm is to form an integral part of the army to whose organization it will now conform. The new system is to come into force on 1st January, 1930. Details concerning the future Landsturm are given in the following paragraphs.

*Service, Tasks and Organization.*

All officers in the Landsturm serve up to 52 years of age, or longer with their own consent. Officers can also be transferred from the Elite or Landwehr. Other ranks are made up of men of 41 to 48 who have received military instruction in the Elite or Landwehr, men found medically unfit for these latter, and volunteers possessing the necessary qualifications, *e.g.*, for the infantry, proficiency in rifle shooting. In addition, officers and non-commissioned officers serving

in the Elite, Landwehr or Landsturm may be declared suitable for active service in only certain branches of the Landsturm. Such persons are then divided into various categories according to their physical condition or technical and professional qualifications and they form a cantonal pool for employment where required.

The tasks of the Landsturm on mobilization are two-fold: they are—

- (1) The performance of certain tasks during the mobilization of the field army, such as the guarding of the frontiers and important points or the carrying out of special missions.
- (2) The reinforcement of the technical arms of the Landwehr, or the execution of particular duties during mobilization, such as the effecting of demolitions.

In addition specially organized units may be raised for local or other reasons.

In consequence, the Landsturm is organized on a territorial basis in the case of the infantry and cavalry, together with their necessary train and convoy units, who are to carry out the first of the above tasks.

*Note.*—In the Swiss Army the latter units supply regimental and 2nd line, or train, transport respectively.

The numbers of the above units and the strengths to be maintained are as follows:—

Unit.	Number.	Strength.	Remarks.
Infantry company .. ..	208	200	Organized into 70 battalions.
Machine-gun company ..	60	70	4 guns. Also 10 detachments.
Cavalry company .. ..	15	120	Dismounted. Also 15 detachments.
Train company .. ..	12	160	Also 15 detachments.
Convoy company .. ..	18	180	Also 12 detachments.

The above units have been allotted to cantons in such numbers that the strengths laid down can be maintained, and the proportions between the different arms have been made approximately the same in each canton. Cantons are responsible for fixing the territorial areas of individual units and for keeping unit records. The military

territorial district commander is to arrange for a commander and staff where several units are destined to undertake an important mission conjointly. Any inequalities in unit strengths are to be adjusted on mobilization, and the scheme further provides that future adjustments may be made by the Federal Council both in the territorial allotment and in the total numbers of units, so as to conform with changes in population.

In order to fulfil the second of the two tasks, the organization of the Landsturm is based upon that of the Landwehr in the case of the technical branches, *viz.*, the artillery, engineers and signals, aviation, mechanical transport, medical, veterinary and supply services. For each unit of Landwehr, or mixed unit of Landwehr and Elite, there is a corresponding Landsturm unit which is designated by the same number. Cadres and men thus serve together in the Elite, the Landwehr and the Landsturm. This arrangement is intended to foster *esprit de corps* and to simplify technical training and reinforcement of the Landwehr on mobilization, since each man will rejoin his old unit. The mechanical transport service, however, provides an exception, since in this case the detailing of personnel to Landsturm units on mobilization is retained in the hands of the Federal War Department.

#### *Command, Training, Inspection and Administration.*

In peace, the command and training of the Landsturm is vested in the General Staff branch of the Federal Military Department, which is to co-ordinate the rôle of the Landsturm with other measures of defence.

Landsturm commanders, to whom special tasks are delegated on mobilization, will be ordered to carry out the necessary reconnaissances on which instructions can be subsequently drawn up.

All ranks are to undergo an annual inspection of arms, equipment and mobilization papers and instructions. Tactical inspections are carried out by the territorial commander, and technical inspections by a representative of the service concerned.

The cantons are in principle to be responsible for the administration of the Landsturm, but the Federal military authorities will carry out the same duties as they perform in the administration of the remainder of the army.

*Mobilization.*

On mobilization the Landsturm will come under the orders of the Federal army commander, but any commanding officer is authorized in case of imminent danger to place the Landsturm units in his area in a state of readiness.

All ranks report at their places of joining completely equipped and with one day's rations. Volunteers will receive equipment from the nearest ordnance depôt. Ammunition and regimental equipment is issued at the place of joining or the nearest ordnance depôt.

Men of units organized on a territorial basis are to take up their duties at latest by the morning of the 1st day of mobilization; units earmarked for independent duties have the first call on equipment and on specialists such as light automatic gunners. In the case of the technical branches, men of nearly all units are to be ready by the 1st day, with the exception of certain engineer and medical units. Individuals not allotted to a unit are to report at the capital city of the canton on the 6th day.

The Landsturm unit commander is allowed considerable elasticity as regards maintenance arrangements during mobilization; subsequent requirements may be met from military sources or recourse may be had to purchase.

## SYRIA.

*The Mosul Pipe Line.*

Permission has been asked by the Iraq Petroleum Company Mission, which arrived in this country in August, for three of its members, Mr. Towl (American), Mr. Douglas (British), and Monsieur Parmentier (French), to carry out an aerial reconnaissance of part of the country which may be traversed by the pipe line from Mosul to the Mediterranean. The French authorities are placing military aircraft at their disposal and, with the permission of the Iraq authorities, they proposed starting their reconnaissance on the 25th September. The line which they will follow will be:—

Outward :—Rayak—Forklos—Palmyra—Abou Kemal—  
Ana (Euphrates)—Tekrit (Tigris).

Return :—Tekit—Deir-ex-Zor—Forklos—Homs.

They are arranging for the Standard Oil Company in Iraq to dump petrol at Ana and Tekrit.

## REVIEWS.

### “THE GENERALSHIP OF ULYSSES S. GRANT.”

By

COLONEL J. F. C. FULLER, C.B.E., D.S.O.,

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(John Murray, London). 21s.

One is always sure of originality in any book by this well known military writer. While one may not always agree with his theories and flights of imagination, these provide much food for thought and reveal an unusual outlook on war and human nature. The latter particularly is stressed, for Colonel Fuller is too experienced a student of war to imagine that it is purely a matter of blood and iron.

In the book under review he paints a brilliant study of a leader whose generalship has perhaps hitherto not been appreciated at its full worth.

To do so, he has perforce to deal at some length with the actual historical events in which General Grant developed his destiny. This book is, however, far from being a purely historical narrative. Events are only elaborated in so far as they bear on the object of the book as stated in the title. It is thus singularly free from those wearisome records of figures or statistics which mar the average history.

The author states that “the gist of this book is to write living history—not merely—to dig up political and military bones, but to endow these dead things with a little life, so that they may speak to us as if they were living things, and speak to us of their day in terms of our day.” In our opinion he has succeeded to a remarkable degree for, as we read, the characters come to life and act their parts on a stage just sufficiently lighted to throw them into bold relief.

In analysing the character of Ulysses Grant the author does not excuse his errors and shortcomings—rather the reverse. He seeks to examine his actions at the various stages *with due regard to the attendant circumstances*. Herein we think, lies the merit of this book. The average soldier can see the errors of the great captains and say what ought to have been done, but only after the event with all the pros and cons quietly before him, in an atmosphere unaffected by



fatigue, strain or responsibility. It therefore behoves the historian to bring out the ancillary moral factors in any situation, and this is where most of them fail, but where this book does not.

In his Introduction, the author philosophizes on the attributes necessary in a general. He rightly points out that the first quality necessary is fortitude. We can recollect the example of Von Prittwitz' lack of fortitude in East Prussia in 1914; how the adverse course of events in the East for Germany was rectified and brought to a triumphant culmination at Tannenberg, entirely owing to the fortitude of the new commander—Ludendorff.

Other necessary qualities are enumerated, but there is one strange omission (particularly in view of the author) and that is—Imagination. "Mental alertness" is surely not sufficient. A general must have imagination, whether to put himself "in the other fellow's place" or to visualize the possibilities of a new invention or to realize the potentialities of his own army. The author perhaps implies this quality when he says that "the greatest generals in history have always been more than mere professionals...men who not only understood men as soldiers, but who understood their age."

In this most interesting chapter Colonel Fuller puts forward a plea for youth. "Napoleon was of opinion that few generals of over forty-five were fit for active service command." He shews that the average age of a number of the most important Federal and Confederate generals was  $38\frac{1}{2}$  years and that "in the Napoleonic Wars the average age was much the same." These were, however, exceptional periods. The conditions of modern war are different and, amongst other things, a balance must be struck between the experience of age and the vigour of youth.

With such a wealth of subject matter (400 odd pages) it is impossible to comment on this book in any but a very general manner. We need not remark on the historical narrative further than has been done already, except to say that students of military history should take note of the method by which Colonel Fuller extracts his lessons in this study.

Throughout the volume the author keeps his object well in view. He takes us through the various stages of Grant's life—as an assistant in a leather store, as a commanding officer, as a subordinate general, as general-in-chief and finally his "generalship of peace." Grant's success

is shewn to be "the success of sheer common sense which is almost the same thing as generalship .... His common sense was due to his reasoning nature ; he always had a reason for what he did .... he was accustomed to take things as they were and to devote his whole energies to making the best of them .... He could not dwell upon theories." There are no rules, no royal road to success in generalship. The man who succeeds is he who develops his own personality, provided that personality has the latent qualities which in their own way (differing with different people and nations) inspire confidence and conduce to correct procedure. That General Grant possessed such qualities is very evident from the pages under review.

Finally we would add our meed of praise for the delightful and easy style in which the book is written. Frankly, in other works by Colonel Fuller, we have been "set guessing" by certain of the sentences or theories expounded. In this volume, however, the author does not "let imagination run riot" and we can confidently assure our readers that they will derive much pleasure and profit from what is not only an original study of war, but also a brilliant study of human nature.

### "THE ART OF GENERALSHIP."

By

LIEUTENANT-COLONEL C. O. HEAD, D.S.O.

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(Messrs. Gale and Polden, Ltd., Aldershot). 7s. 6d.

This study, unlike Colonel Fuller's (reviewed elsewhere in this Journal) is not based on a particular campaign. The author takes four generals—Napoleon, Wellington, Wolseley and Sir Henry Wilson and produces a (so to speak) "potted biography" of their lives, analysing the particular qualities in the individual which made for success at each stage. He does not set out to prove that these four were the *greatest* generals in History. Instead he states that "no gallery of military portraits is complete without Napoleon. He was the great teacher... The careers of the great generals sketched in this work cover most of the field of modern generalship."

The word "sketched" is used advisedly, because in a work of only some 190 pages, obviously but a brief analysis is possible. We nevertheless consider that Colonel Head has brought out most of the salient points and in his brevity there is merit.

This book is, to some extent, complementary to the one by Colonel Fuller already referred to. Both reach much the same conclusions though the treatment of the subject is quite different. Two qualities, however, not emphasized by Colonel Fuller, are stressed by Colonel Head. These are physical fitness and imagination. Colonel Head says "There is one essential quality for high command that does not receive sufficient attention—physical fitness. No general not feeling well can do himself justice. He loses self-reliance, capacity for responsibility and ability for making prolonged or strenuous effort. His nerves suffer and his power of rapid decision weakens....," and again "Lord Wolseley has said that one of the greatest qualities desirable in a general is imagination." With these statements we are in complete agreement.

Another interesting difference of opinion between the two authors is on the matter of age. "Age is a matter of far less importance (*i.e.* than physical fitness). Some men at eighty are more bodily and mentally capable than others at fifty. The German old generals did excellent service for their country. Von der Goltz was over eighty when he died at Baghdad after stopping Townshend's advance at Ctesiphon. Hindenburg, Mackensen and Foch were old men....." Thus Colonel Head—as opposed to Colonel Fuller's plea for youth and emphasis that the average age of a number of Federal and Confederate generals, selected at random, was  $38\frac{1}{2}$  years. The truth surely is that this is entirely a matter of the individual. Some men are "too old at forty," whereas others, like Johnny Walker, are "still going strong" at sixty or over.

We think more mention might be made regarding the matter of opportunity. In the vast majority of cases, the presence of the opportunity enabled the great leaders to rise out of the ruck and demonstrate their worth. Many a potential Napoleon dies unknown owing to lack of chance to assert himself. It may be said that the great man will always make his own opportunity. This may often be so. But surely the accident of birth, wealth, events such as a war early in his career, lack of competitors, etc., definitely load the dice in favour of some, at the expense of others.

We are glad to see that Colonel Head disposes of the fallacy that "we are not a military nation." We entirely agree that the Englishman (we would prefer the word British) "belongs to one of the best fighting races on Earth, abnormally brave, sturdy, obstinate and quite

nasty-tempered when his spirit is aroused." We might also add that he is exceptionally intelligent and individualistic—two qualities which are of supreme importance in modern war. The British trait of self-depreciation has been carried to excess and it is a pleasant development to see that modern British writers are less and less feeling the necessity to examine the actions of foreigners in order to expound the teachings of military history.

The author is somewhat caustic and hardly fair in his criticism of the Staff on pages 121—123. His remark that "a long special training for a staff officer is quite unnecessary. The duties are simple...." is at least open to argument. The intricacies of modern staff work in war are such that even the best regimental officer cannot be expected to function with the maximum efficiency without previous training. Moreover, unless there is some measure of uniformity of routine procedure, chaos results. We do not think that now (though there may have been in the past) there is "a great gulf fixed" between the Staff and the Regimental officer.

We consider that Colonel Head has given us a most interesting and readable book, which draws particular attention to an aspect of war which has perhaps not received the full attention it deserves.

### "IMPERIAL ECONOMY."

By

MAJOR R. J. WILKINSON, O.B.E.

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(Messrs. Sifton Praed and Co., Ltd., London) 6s.

The author of this excellent little book states at the outset that it is written "to stimulate thought rather than impart facts" and, in our opinion, he fully succeeds in so doing. The usual masses of statistics which are presented in books of this nature are conspicuously absent; instead, in an easy style and with more than a touch of quiet humour, Major Wilkinson covers a vast amount of ground (both literally and metaphorically) by directing attention to certain aspects of Imperial matters and leaving the reader to elaborate for himself.

With these general remarks we will proceed to more detailed examination of the contents of the Volume.

In discussing the Principles of Imperial Defence with special reference to the Imperial Conference of 1923, the author pleads for more

detailed and exact formulation of the responsibilities of the various Imperial units. It is very doubtful, however, whether this will be in any way possible for many years to come. The Empire is not a balanced piece of mechanism, each part of which has its allotted function. It (like Topsy) "just grew up"—to a great extent haphazard as the result of efforts by individuals. The consciousness of nationhood is only of recent occurrence in our great Dominions and the difficulties of combining the British spirit of independence with mutual inter-dependence complicates the problem. The Imperial Conference of 1923 purposely did not attempt to reduce their conclusions to an exact formula; rather was it considered essential to treat the matter as a "gentleman's agreement." With the remembrance of the manner in which our Dominions voluntarily answered the call in the Great War, we need have no fear for the future.

In the chapter on "Sea Power" the growing naval spirit of the United States of America is mentioned, but not emphasized. This comparatively recent development is, we consider, the greatest world factor in the problem of sea-power to-day. Without the American demand for parity, the problem of limitation of naval armaments, relative tonnage, etc., would not be so difficult. America (as Admiral R. N. Bax says) "undoubtedly intends to be in a position to enforce her views" as regards freedom of the seas—the interpretation of which latter phrase is likely to be as thorny a matter in another as it was in the last War.

In discussing coal on page 63 there is a slight error in the remark that "the coal measures of Great Britain still contain about 150 million tons." British production in 1929 was 261 million tons! Without having reference to authoritative statements on the matter, we seem to remember that the proved (apart from the vast deposits still not tested) coal measures in Great Britain are reckoned to last another century at least.

The author, moreover, does not present the true picture as regards coal distillation. He says that "the cost of producing these by-products is so high that, if heat only is required, it is cheaper to burn the coal in its natural state." Actually there are several *low* temperature carbonization processes recently discovered, which apparently have reached the stage of profitable, commercial production. A case in point is the process used by Low Temperature Carbonization Ltd. This company produces from raw coal (after extraction of the by-

products) a smokeless fuel called "Coalite." The by-products fetch a price higher than the cost of the raw coal and the "Coalite" production of the company could be oversold 100 times over. There are many other such processes and it appears as if the day is approaching when Great Britain will be self-supporting in oil, and by low-temperature distillation the coal-mining industry will resume its pre-war prosperity and importance.

We are glad to see that Major Wilkinson stresses (pages 75 and 121) the question of Industrial Mobilization. As he rightly says "wars are becoming more and more struggles between nations rather than between regular forces." Modern war, moreover, depends to a vast extent on a very varied mass of material, and it is true to say that wars are now won as much in the workshop as on the field of battle. The nation which achieves its maximum industrial effort first after mobilization will hold most of the trumps in the bid for victory.

One peculiar absentee from the book is our old friend "mechanization." We almost feel inclined to congratulate the author. Yet mechanization has its Imperial as well as its Military aspect. Improvements in motor design (*e.g.*, six-wheelers, more H. P. per lb. weight, etc.) affect cheapness of transportation and the flow of trade. In the past, development of a backward area had to wait for the railway; now, perhaps, only for the six-wheeler. Also the broadening of the civil mechanical base assures more certainly the provision of the mechanical element necessary in war.

The Chapter on India will interest readers of this Journal, especially the remark that the geographical difficulties of a Russian invasion of India appear to make such an adventure unlikely.

The foregoing criticism is by no means intended to be carping; it is made "to stimulate thought" and to call attention to certain points which seem worthy of comment. On the contrary, as we said at the beginning of this review, we think that this little book is excellent of its kind and should well repay study by Staff College or Promotion Examination candidates.

**"A SHORT HISTORY OF THE ROYAL ARMY MEDICAL CORPS."**

By

COLONEL F. SMITH, C.B., C.M.G., D.S.O., R.A.M.C.

(Messrs. Gale and Polden, Ltd., Aldershot) 2s. 6d.

The author of this small volume states in a prefatory memorandum that it has been written "for the use of young soldiers of the

Corps, at the Depot, who have to pass examinations in the subject in order to qualify for the 3rd class certificate of the Army Educational Department."

It is nevertheless interesting to others and Colonel Smith has evidently taken a considerable amount of trouble to "wade through" old records, so as to produce quite a readable book.

The style in parts perhaps rather reminds one of "Mummy telling little Clarence what Daddy did in the Great War" and there are too many descriptions of exploits by individual members of the R. A. M. C. The author, however, disarms criticism by the wording of the OBJECT of his book, as quoted in the first paragraph of this Review.

Few people, we think, realize that the Royal Warrant of August 1st, 1857 (a mere 73 years ago) was the real, or foundation charta of the R. A. M. C. We have had occasion in these pages previously to remark that the British Army of today is an evolution out of the errors and follies of the past. In no case is this more true than in that of the R. A. M. C. It is almost inconceivable to read that only a century ago "sick and wounded were left a good deal to the care of the inhabitants of the country where they fell....." and that "when the Crimean War with Russia broke out in 1854, there was as yet no medical corps in England." Organization is one of the main elements in the science of war and it is strange that such loose thinking on organization could have existed up till so recently—and this in a nation whose *forte* is organization.

The most interesting Chapter to readers of this Journal will doubtless be that on the Great War of 1914-18. In this the author quotes some staggering figures as follows:—

Strength of the R. A. M. C. mobilized in			
August 1914	..	..	9,000
Strength in November 1918	..	..	1,33,000
Sick and wounded dealt with during the			
war	..	..	(approx.) 9,000,000

It is certainly also worthy of note that the only two soldiers who have gained a bar to their V. C. are R. A. M. C.

To sum up, we can hardly say that this book supplies a long felt want; but, provided the reader has the capacity to extract the "meat" from a mass of detail and statistics, and taking into account the diffi-

culties of compiling a history of this nature, we think it is worthy of a place on any library bookshelf—especially as any profits from its sale are devoted to R. A. M. C. charities.

“THE JOURNAL OF THE SOCIETY OF ARMY HISTORICAL  
RESEARCH.”

VOL. VIII, OCTOBER 1929, No. 34.

(*Sir W. C. Leng & Co., Ltd., Sheffield*) 6s.

There are few more absorbing hobbies than that of the collector of antiques. In this effieient, rationalized modern world there is a fascination in acquiring tokens of a bygone day, when the art of the craftsman instead of the machine was paramount and when mankind was less stereotyped than now. The fascination is not only in the actual acquisition of material; it is also provided by the satisfaction of curiosity, the lifting of the veil of the past so that we may realize how our ancestors thought, lived, moved and had their being.

Historical research may be said to come within this category. We do not refer to dry statistics and figures, but (as mentioned above) to the discovery of interesting aspects of the past. The Journal under review deals with “Army Historical Research,” a field in which perhaps there are more records available for examination than in most others.

In our opinion this Journal deserves to be far more widely read and patronized (particularly by soldiers) than apparently it is. The Editor states that 83 new members joined the Society in the period of nine months ending 30th September 1929, but that “many more are required to enable the size of the Journal to be increased, and, if possible, remuneration to be paid for articles, papers, etc.” Assuredly the number of Military periodicals is large, but this Research Journal is, we think, the only one of its kind as far as the Army is concerned. As such, it could with little expense (one guinea per annum) be taken in by all messes and there is no doubt that it would appeal to a wide circle of readers.

The volume is well “got-up” with many excellent plates of colour, photo or engraving. The contents include, amongst others, descriptions of the expedition against New Orleans, North America in 1814-15 and of Sir William Howe’s operations in Pennsylvania in 1777. The former article is particularly interesting as it consists of extracts from



the Journal of the officer commanding the Royal Artillery present during the campaign. A large part of the Journal is devoted to "Notes, Questions and Replies" provided by readers and solicited by the Editor. Many of these are of great interest and amusement, and cover the Indian as well as the British Army. Those pages should form a valuable medium for eliciting information about their units on the part of regimental officers.

Apart from the minor criticism that the Index is on the back cover, we consider that this is a most readable and well produced Journal.

"THE ROYAL AIR FORCE QUARTERLY"

VOL. I, NO. 1. JANUARY 1930.

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(Messrs. Gale and Polden, Ltd., Aldershot) 7s. 6d.

Welcome!

It is with the greatest pleasure that we have received this first issue of the Royal Air Force Quarterly, and it almost borders on the presumptuous to insert a review thereof in these columns.

"Good wine needs no bush" and we strongly advise all those who have not done so to read this literary newcomer. We should like to call it "tophole," but we must be content to use the term "magnificent" or "sublime" (cf. page 27: article entitled "with reference to official language")!

Two things particularly strike us after reading this issue from cover to cover and they are:—

1. The amazingly fine manner in which the volume is "got up."
2. The variety and interest of the "copy."

Illustrated as it is by copious beautiful photographs (colour and photogravure) and diagrams, and with the letter press very clearly set out, this quarterly (of 234 pages) really ranks as a high-class book.

As regards the subject matter, we quite frankly feel envious. The cry of the harassed editor is usually for something original, something different from the usual stereotyped article on how General D. Run-kard won the Battle of Whisky Water. Apparently Squadron-Leader Burge has had no difficulties in this respect.

We think any reader, civil or military, will agree with the above "appreciation." Many people imagine that service journals are merely the technical vapourings of "hired assassins." We can assure

all such that this is not so, particularly in the case of the quarterly under review. The service officer, after all, is a citizen just the same as anyone else, a thoroughly patriotic citizen and one who, from actual contact with its horror, is the last person in the world to desire war. Moreover, with a broadened outlook due to service all over the world and contact with many peoples and types of humanity, the service officer is in as good and perhaps better a position than most people to write on a variety of subjects.

To elaborate our argument let us take the case of this issue of the R. A. F. Quarterly and select at random such of the contents as :—

1. "Some experiences in the High Speed Flight, 1929"—an intensely interesting sidelight on the Schneider Cup and which doubtless would have been the "scoop" of the year if collected by a Press reporter.
2. "Report on the Air Operations in Afghanistan"—a very human document on a subject which enthralled the whole world not so long ago.
3. "An analysis of leadership"—in which we particularly like the idea of "Cromwell as the life and soul of a riotous guest night" !
4. "With reference to official language"—an amusing satire on stereotyped official and business English.

None of these four articles can be accused of being militaristic and all should be of as great interest to the civilian reader as to the military one.

We feel that this quarterly should have a wide vogue, as, with the rapid spread of civil aviation, the world is becoming more "air minded" (with apologies to Major Loch, *cf.* page 23) every year.

With these few words of welcome to our virgin sister, we will conclude by offering our heartfelt congratulations and hoping that she will produce many more as lusty and intriguing infants as her first-born.

" SHERMAN "

By

B. H. LIDDELL-HART.

(Messrs. Ernest Benn Ltd., London.) 21s.

At the moment it seems to be the fashion to write books on the American Civil War, selecting a hero and shewing him to be possessed of most, if not all, of the virtues necessary in a commander.

Captain Liddell-Hart chooses Sherman, Colonel Fuller selects Grant. Both, however, set out to treat their subject in the same manner, *i.e.*, analysis of the mentality and psychology of the individual, as opposed to a general treatise on historical events. "This study of Sherman," says Captain Liddell-Hart, "is an attempt to portray the working of a man's mind, not merely of a man's limbs and muscles encased in uniform clothing. . . . . This book is a study of life, not of still life. . . . an exercise in human psychology, not of upholstery. . . . historically and practically it is far more important to discover what information they had, and the times it reached them, than to know the actual situation of the "pieces." A battlefield is not a chess-board." In our opinion, that is the correct method of obtaining value from history and as such we welcome this book.

Frankly, nevertheless, we find it somewhat difficult to read,—a trifle wordy and with the main issues rather fogged with comparatively irrelevant details. The author appears to drift at intervals into side-lines which do not bear on his object in producing this work. This doubtless is due to his being carried away with enthusiasm in having discovered his hero.

Captain Hart, similarly to Colonel Fuller, is convinced that "the war in the West, neglected by European military thought in the half-century that followed, revealed not only the essential nature of a modern war of nations, but also the essential influence of economic and psychological factors upon the course of such a war." With this view we are inclined to agree, but it must be remembered that modern students of military history have the examples of the Great War as a comparison, whereas pre-war students had not this automatic direction of thought.

Sherman seems to have been one of those people who develop late in life. "At the Academy (West Point) I was not considered a good soldier, for at no time was I selected for any office, but remained a private throughout the whole four years. Then, as now, neatness in dress and form, with a strict conformity to the rules, were the qualifications for office and I suppose I was found not to excel in any of these." On this extract from Sherman's memoirs Captain Hart cannot resist saying "Could any indictment of the orthodox system and standards of military education be more quietly damning?" But is it the whole picture? An army cannot be composed of a variegated mass of free-acting individuals. Therefore, to obtain the

essential cohesion, there must be a standard of discipline or uniformity (especially with cadets), a "common denominator" applicable to all in a greater or less degree. Moreover, there is no doubt that neatness of body tends to inculcate orderliness of mind. The latter thus may be the result of the newly acquired attributes and may cause that late development of character and ability which has so often occurred in other leaders besides Sherman. It is by no means always the boy who is "bright" in early youth who makes his name in after life. More often the great man is he whose latent powers only develop full force after the basis of self-discipline has been firmly established. Added to this (as we state in another review in this issue) there is the question of opportunity. Ability, character and opportunity are the three main, conjoint factors for success. We think that no unbiassed student of military history and psychology will agree with Captain Hart's indictment.

As regards Sherman's personal qualities, Captain Hart brings out particularly his instinct for the art of popular leadership and his ruthlessness when necessary. To exemplify the former he describes how Sherman once declined the offer of a private box at the theatre and sat in the pit among the soldiers. With certain mentalities this action might have been construed as too obvious; but the point is that Sherman appreciated not only the mentality of the hard-bitten citizens under his command, but also the value of personal contact with the rank and file—an aspect of leadership which in these days of rearward headquarters and vast armies is liable to be overlooked. As regards his ruthlessness, the closing of the railroads and cutting transport to the minimum are cases in point. "One wagon for myself, aides, officers, clerks and orderlies" gives one furiously to think in respect of transport in the Great War.

Above all Sherman is shewn to have a capacity for clear thinking and we may perhaps quote one sentence of his which deserves wide publication in these days of muddleheaded pacifism. "War is hell! you cannot qualify war in harsher terms than I will. War is cruelty and you cannot refine it.....but you cannot have peace and a division (of the United States) too. If the United States submits to a division now, it will not stop.....until we reap the fate of Mexico, which is eternal war....." Thus the realist, who saw that the courage to make war on certain occasions may save untold suffering at a later date.

In those parts of the book dealing purely with historical events the author is commendably non-statistical and the volume is admirably illustrated with clear maps. The description of the Atlanta campaign is particularly graphic.

Speaking generally, we consider that, while there is much food for thought in Captain Hart's book, neither the writing nor the treatment of the subject matter reaches such a high standard in this book as compared with some of his earlier works.

“MARLBOROUGH AND HIS CAMPAIGNS

1702—1709.

By

A. KEARSEY, D.S.O., O.B.E., P.S.C., LATE LIEUTENANT-COLONEL,  
GENERAL STAFF.

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(Messrs. Gale and Polden, Ltd., Aldershot), 3s.

As introduction, the author states that he “has endeavoured..... to write down, with judgment and impartiality, his deductions and comments on the four principal battles in Marlborough's Campaigns 1702—1709.....he hopes that these comments may prove helpful to those who have not had the time for extensive research and who wish to have the main points presented to them in a complete and concise form.....”

He arranges his book first by quoting the diary of principal events year by year and then analysing the four main battles in conjunction with F. S. R. Volume II, 1823.

This treatment of the subject serves well to attain his object, which in effect apparently is to produce a potted history with references to F. S. R. for examination purposes.

Following the prevailing vogue, Colonel Kearsay seeks to show that Marlborough's successes had root in his own personality. “We find in Marlborough a combination of determination and piety, of courage and devotion to his family, as well as a deep and abiding faith, which enabled him to develop his aptitude for patience, his consummate sense of proportion, and his transcendent capacity for taking trouble; and thus to achieve, by his sound judgment and resolution, victory over France and Louis XIV.” While no doubt the above statement is correct, Marlborough seems to have been a man of strange contradictions. Inevitably so, perhaps, for an “average” man cannot rise to the heights necessary in a great leader. It is those

who, through innate traits of character, are capable of extremes, that achieve the greatest success or failure. Marlborough enjoyed to the full the three interlocking factors for success (*cf.* another review in this issue) *viz.*, ability, character and opportunity—and it is a measure of his greatness that he fashioned these instruments of fate to his own and England's ends.

The author's chapters in reference to F. S. R., Vol. II, 1922 are clearly set out and we think that they will be appreciated by those officers who desire to connect the somewhat dry essence of an official doctrine to the more vivid and human pot-pourri of history. We are doubtful, however, if he has laid sufficient emphasis on those factors which are not purely military, but which in these days often carry as much weight. He states that Marlborough acted on the principle that "the ultimate aim.....the destruction of the enemy's main forces, must always be held in view," but he does not bring out that political and economic questions also require careful consideration. It is the destruction of the enemy's power of resistance rather than the physical defeat of his army which "must always be kept in view." We admit that Colonel Kearsley's object is, to all intents and purposes, to illustrate F.S.R. Vol. II, but we feel that other co-relating aspects cannot be neglected and should have been enlarged on to a greater extent.

The sketches at the end of the book are distinctly crude and might, with advantage, have been more full of detail.

Taking everything into consideration, we are of opinion that this book is not one that will be read with enjoyment in a hour of leisure. It is too concentrated essence. It, however, forms a valuable agglomeration of facts which will be useful for promotion or staff college candidates and for the preparation of lectures to illustrate F. S. R., Vol. II.

**"A HISTORY OF THE PROVOST MARSHAL AND THE PROVOST SERVICES."**

By

CAPTAINJ H. BULLOCK. F. R. HIST. S., I. A.

(*Messrs Milne and Hutchinson, Aberdeen*).

The author of this little pamphlet of 71 pages is remarkably successful in producing a palatable dish out of somewhat dry bones. He calls his production a "history," but obviously it is the merest outline of events.

He traces the development of the Provost Marshal from 1511 to 1926 and points out that "the only military officer who has for four centuries borne the same designation and carried out the same duties, is the Provost Marshal." This officer may thus claim to be the "father of the Army."

There is much of interest in this little work and, in our opinion, Captain Bullocks's method of treatment of the subject is exactly right for a "history" of this nature. He, so to speak, "rambles" along the years, musing and quoting quaint extracts from treatises of bygone centuries. We use the word "quaint;" yet there is no doubt that our forefathers, though they expressed their views in a different method to us to-day, had a very clear conception of the correct duties of the Provost Marshal. We would, in this connection, particularly refer our readers to the extract (on pages 41—46) from "Five Decades of Epistles of Warre" by Francis Markham, published in 1622. *mutatis mutandis* every word in that extract is as true to-day as when it was written over 3 centuries ago.

In past days we know that the law was far severer than now and the great power of the Provost Marshal to inflict summary punishment is well brought out by Captain Bullock. The more backward a civilization, the greater the need for a harsh code of punishment and for retribution to be wift on the heels of crime. In these days of long-drawn-out legal formalities and inexact definition of sedition, some readers of this pamphlet will no doubt sigh for the "good old days" when the obviously bad men could be "removed" from the society of their fellows without much ado! In this connection, of many stories in the pamphlets many will chuckle at the crude humour of the provost marshal in 1549 (Sir Anthony Kingston) who invited himself to dinner with the Mayor of Bodmin after Arundel's rebellion. Kingston sent word to the Mayor that he had a man to hang and a gallows must be prepared. The dinner was duly eaten and the gallows prepared. "Think you," said Kingston to the Mayor as he stood looking at the gallows, "think you it is strong enough?" "Yes, Sir," replied the Mayor, "it is." "Well then," said Sir Anthony, "get you up, for it is for you". And so, without respite or stay, the Mayor was hanged.

We also like the arrangement (circa 1511) where soldiers found gambling "should lose all such money as he or they play for, the one halfe to the provost of the marshall, and the other halfe to hym that

so fyndeth them playing " ! We have heard that the same system was applied with success as regards poaching and the Civic Guards in the Irish Free State.

The author concludes by shewing that the law since 1879 expressly forbids any provost marshal from inflicting any punishment of his own authority and outlines his status to-day.

Though to this pamphlet attaches perhaps more interest than military value, yet we feel it is well worth perusal. A knowledge of Military Law is obligatory for all officers and at any rate one aspect thereof is sketched in this amusing little work by Captain Bullock.







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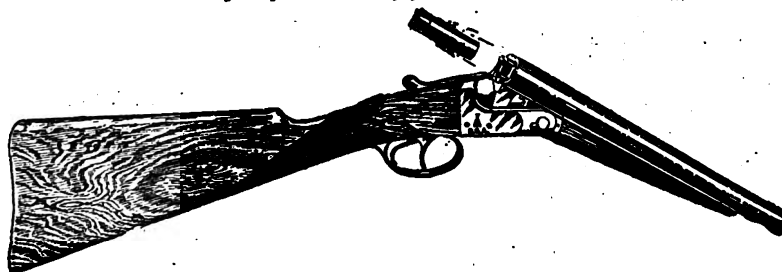
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| 16. Brigadier H. F. E. MacMahon, C.B.E., M.C., A.D.C.          | 19. Colonel L. P. Collins, D.S.O., C.B.E.             |
|  | 20. Major A. F. R. Lumby, C.I.E., C.B.E.              |

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1. The United Service Institution of India is situated at Simla.
2. Officers wishing to become members of the United Service Institution of India should apply to the Secretary. The rules of membership are printed inside the front cover.

3. The Reading Room of the Institution is provided with most of the leading illustrated papers, newspapers, magazines, and journals of military interest that are published.

4. There is a well-stocked library in the Institution, from which members can obtain books on loan free.

5. The Institution publishes a Quarterly Journal in the months of January, April, July and October which is issued postage free to members in any part of the world.

6. Members and the public are invited to contribute articles to the Journal of the Institution for which honoraria will be awarded by the Executive Committee. Rules for the guidance of contributors will be found in para. IV, Secretary's Notes.

7. Members are responsible that they keep the Secretary carefully posted with regard to changes of address.

8. When temporarily in the U. K., Officers of the Indian Army can join the Royal United Service Institution, Whitehall, for a period of six months on payment of half a guinea, or for a period of one year on payment of a guinea.

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## **United Service Institution of India.**

**JULY 1930.**

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**I.—New Members.**

The following new members joined the Institution from 1st March to 31st May 1930 :—

*Ordinary Members.*

E. B. Howell, Esq., C.S.I., C.I.E., I.C.S.  
 Major-General O. H. Delano-Osborne, C.B., C.M.G.  
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 Major-General B. R. Kirwan, C.B., C.M.G.  
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 Captain W. J. Fry.  
 Captain P. A. Brooke, M.C.  
 Captain D. B. Sangster.  
 Captain T. A. Stapleton.  
 Captain H. A. Lash,  
 Captain D. S. Norman.  
 Lieut. A. E. Bagwell-Purefoy.  
 2/Lieut. K. T. Roper.  
 2/Lieut. Vir Singh.  
 2/Lieut. R. H. Limaye.

**II.—Examinations.**

1. The following table shows the campaigns on which the military history papers will be set from October, 1930, for lieutenants for promotion to captain in sub-head (b) (iii) and for captains for promotion to major in sub-head (d) (iii):—

1	2	3	4	5
Serial No.	Date of examination.	Campaign set for the first time.	Campaign set for the second time.	Campaign set for the last time.
1	October, 1930 ..	..	Battles of Aubers Ridge, Festubert and Loos, 1915.	Egypt and Palestine, from the outbreak of war with Germany to June, 1917.
2	March, 1931 ..	Marlborough's Campaigns, 1702-09.	..	Battles of Aubers Ridge, Festubert and Loos, 1915.

2. Before beginning to read Marlborough's Campaigns, candidates are advised to study carefully Section 9, Training and Manœuvre Regulations, 1923.

3. Army Orders 11 and 292 of 1927 and 49 of 1928 were republished as India Army Orders 241 and 768 of 1927 and 359 of 1928, respectively.

4. Books on military history and languages with dictionaries are available in the Library. The following list of books may be found useful for reference by officers studying for Promotion Examinations or entrance to the Staff College :—

(The list of books presented and purchased as shown in the Journal should also be consulted.)

### MILITARY HISTORY.

1.—*The Campaign of the British Army in France and Belgium.*

#### A.—OFFICIAL HISTORY OF THE WAR.

Military Operations, France and Belgium, Vol. I (to October, 1914).

Military Operations, France and Belgium, Vol. II (to 20th November, 1914).

Military Operations, France and Belgium, Vol. IV, 1915.

Sir John French's Despatches.

#### B.—OTHER BOOKS.

40 days in 1914 (General Maurice, new edition).

1914 (Viscount French).

My War Memories (Ludendorff).

General Headquarters, 1914-16, and its Critical Decisions (Falkenhayn).

The March on Paris, 1914 (Von Kluck).

Ypres, 1914. (An official account) (German General Staff).

Oxford Pamphlets, August 1914. The Coming of the War. (Spencer Wilkinson).

Oxford Pamphlets, August 1914, Nos. VII and X.

Times Documentary History of the War, Vol. V, Military, Part I.

Times Documentary History of the War, Vol. VIII, Part III.

Der Grobe Krieg : Die Schlacht bei Mons (German General Staff).

Der Grobe Krieg : Die Schlacht bei Longwy (German General Staff).

Story of the Fourth Army (Montgomery).

**2.—The Palestine Campaign.****A.—OFFICIAL ACCOUNTS.**

**A Brief Record of the Advance of the Egyptian Expeditionary Force, 1919.**

**The Australian Imperial Force in Sinai and Palestine (H. S. Gullett).**

**The New Zealanders in Sinai and Palestine (Lieut.-Col. C. G. Powels).**

**The Official History of the Great War. Military Operations in Egypt and Palestine, Vol. I, and Maps (Lieut.-General Sir George MacMunn and Captain Cyril Falls).**

**The Official History of Australia in the War, 1914-18, Vol. VII Sinai and Palestine (H. S. Gullett).**

**B.—OTHER BOOKS.**

**Soldiers and Statesmen (Field-Marshal Sir W. Robertson).**

**The Revolt in the Desert (T. E. Lawrence).**

**Allenby's Final Triumph (W. T. Massey).**

**How Jerusalem was Won (W. T. Massey).**

**Outline of the Egyptian and Palestine Campaigns, 1914-18 (Bowman-Manifold).**

**The Palestine Campaign (Colonel A. P. Wavell).**

**The Desert Campaign (W. T. Massey).**

**L'Attaque du Canal de Suez (Douin).**

**Army Quarterly—October 1920 (T. E. Lawrence's article).**

**Army Quarterly—January 1922 (Lieut.-Colonel Wavell and C. T. Atkinson's articles).**

**Cavalry Journal—October 1921 (Lieut.-Colonel Rex Osborne's article).**

**Cavalry Journal—July 1923 (Lieut.-Colonel Beston's article).**

**R. U. S. I. Journal—May 1922 (Colonel-Commandant Weir's article).**

**U. S. I. Journal—October 1923 (Captain Channer's article).**

3.--*The Dardanelles Campaign.*

*Description.*

- Naval and Military Despatches .. A clear account of the operations in detail from the G. H. Q. standpoint.
- Reports of the Dardanelles Commission. Fixes responsibility for the inception and conduct of the campaign. An interesting study in the relationship between Politicians and Naval and Military Experts.
- The Dardanelles (Callwell) .. The best account and criticism of the strategic conduct of the campaign.
- Gallipoli Diary (Sir I. Hamilton) .. The campaign from the point of view of the C.-in-C. on the spot.
- Life of Lord Kitchener (Arthur) .. Throws considerable light on Lord Kitchener's direction of the campaign.
- The Dardanelles Campaign (Nevinson).  
Gallipoli (Masfield) } Well written and picturesque accounts by eye-witnesses.
- The World Crisis (Winston Churchill). Explains his part in the inception of the campaign.
- Soldiers and Statesmen (Field-Marshal Sir W. Robertson). From the point of view of the C. I. G. S.
- Five years in Turkey (Liman Von Sanders).
- Official Account: Official History of the War, Naval Operations, Vols. II and III.
- Gallipoli Campaign (Outline of Military Operations). By a Student.
- Experiences of a Dugout (Callwell).
- Despatches from the Dardanelles (Ian Hamilton).
- The Navy in the Dardanelles Campaign (Wemyss).
- Official History of the Great War, Gallipoli, May 1915. Vol. I (O. F. Aspinall Oglander).

---

NOTE.—For a fuller list of authorities, see Appendix I to Callwell's "The Dardanelles."



*4.—The Mesopotamia Campaign.*

The Campaign in Mesopotamia, 1914-18 (Evans).

Official History of the Campaign in Mesopotamia, Vol. IV  
(F. J. Moberly).

Critical Study of the Campaign in Mesopotamia up to April,  
1917.

Soldiers and Statesmen (Field-Marshal Sir W. Robertson).

The World Crisis (Winston Churchill).

Notes and Lectures on the Campaign in Mesopotamia  
(A. Kearsey).

*5.—Waterloo Campaign.*

Waterloo Campaign (J. H. Anderson).

Waterloo (Hilaire Belloc).

Wellington and Waterloo (Arthur Griffiths).

Waterloo, the Downfall of the first Napoleon (George  
Hooper).

Campaign of 1815 (W. H. James).

With Napoleon at Waterloo (E. B. Low).

Campaign of 1815, Ligny : Quatre-Bras : Waterloo (W.  
O'Connor Morris).

Waterloo Campaign (S. C. Pratt).

Wellington and Waterloo (G. W. Redway).

Wellington Campaigns. Peninsula-Waterloo, 1808-15, also  
Moore's.

Campaign of Corunna (C. W. Robinson).

*6.—Marlborough's Campaigns.*

History of the British Army, Vol. I (Hon. J. W. Fortescue).

Life of John, Duke of Marlborough, Vols. I and II (Archibald  
Alison).

The Wars of Marlborough, 1702-09 (Frank Taylor).

John Churchill, Duke of Marlborough, Vols. I and II (Viscount  
Wolseley).

Marlborough and the Rise of the British Army (C. T. Atkinson).

A Short Life of Marlborough (H. J. & E. A. Edwards).

The Battle of Blenheim (Hilaire Belloc).

7.—*The American Civil War.*

- Stonewall Jackson and the American Civil War (G. F. R. Henderson).
- History of the Civil War in the United States, 1861-65 (W. B. Wood and J. E. Edmonds).
- History of the Campaign of Gen. T. J. (Stonewall) Jackson in the Shenandoah Valley of Virginia (William Allen).
- American Civil War (J. H. Anderson).
- The 1st American Civil War, 1775-78 (Henry Belcher).
- The American Civil War, 1861-64 (John Formby).
- History of the American Civil War (J. W. Draper).
- Fredericksburg and Chancellorsville (J. E. Gough).
- Battles and Leaders of the Civil War (Johnson and Buel).
- War of Secession, 1861-62 (G. W. Redway).

8.—*The East Prussian Campaign.*

Tannenberg—First 30 days in East Prussia (Edmund Ironside).

9.—*The Russo-Japanese War, 1904, up to and including the Battle of Liao-Yang.*

- A Staff Officer's Scrapbook (Ian Hamilton).
- German Official Account.
- Lectures on the Strategy of the Russo-Japanese War (Bird).
- Question on the Russo-Japanese War (Brunker).
- Official Account: The Russo-Japanese War (Naval and Military),  
3 Vols., published by Committee of Imperial Defence.
- Outline of the Russo-Japanese War (Ross).
- A Study of the Russo-Japanese War (Chasseur).
- My Experiences at Nan Shan and Port Arthur (Tretyakow).
- Outline History of the Russo-Japanese War, 1904, up to the  
Battle of Liao-Yang, with Questions and Answers (P. W.).
- A Short Account of the Russo-Japanese War ("Footslogger").
- An Account of the Battle of Liao-Yang (with questions and 10  
maps for examination purposes) (Bird).

10.—*Organization of the Army since 1868.*

## A.—ORGANIZATION OF THE ARMY SINCE 1868.

History of British Army, by Fortescue, Vols. I to XIII.

Outline of the Development of British Army, by Major-General  
Sir W. H. Anderson.

Our Fighting Services, by Sir Evelyn Wood.

## B.—FORCES OF THE EMPIRE.

The Annual Army Estimates of Effective and Non-Effective  
Services (H. M. Stationery Office).

\* Notes on the Land Forces of the British Dominions, Colonies,  
Protectorates and Mandated Territories, 1928.

The Statesman's Year Book 1929.

Army List.

Articles in Newspapers and Magazines, *viz.*, R. U. S. I. Journal,  
Army Quarterly, Journal of the U. S. I. of India, etc.

† Handbooks for the Indian Army—Sikhs, 1928.

11.—*Development and Constitution of the British Empire.*

## A.—THE BRITISH EMPIRE.

Encyclopædia Britannica—(contains much concentrated information).

The Statesman's Year Book.

Whitaker's Almanack.

The Colonial Office List.

The Government of the British Empire (Jenks, 1923).

The Foundation and Growth of the British Empire (J. A. William-  
son, 1918).

The Beginnings of English Overseas Enterprise (Sir C. P. Lucas,  
1917).

The British Empire Series. (12 Volumes).

The Government of England (L. A. Lowell, 1912).

The Expansion of the British Empire (W. H. Woodward, 1921  
and 1927 editions).

Overseas Britain (E. F. Knight, 1907).

The Origin and Growth of the English Colonies and of Their System  
of Government (H. E. Egerton, 1903).

---

\* Particularly recommended by the C. I. C. S. for all officers to read.

† Not to be removed from the library.

- A Short History of Politics (Jenks, 1900).  
The English Constitution (Bagehot, 1909).  
The Expansion of England (Sir J. Seely, 1883).  
Introduction of the Study of the Law of the Constitution (A. V. Dicey, 1908).  
England in the Seven Years' War (Sir J. Corbett, 1907).  
Selected Speeches and Documents on British Colonial Policy, 2 Vols. (A. B. Keith, 1918).  
Forty-one Years in India (Lord Roberts).  
History of the British Army (Sir John Fortescue).  
General Survey of the History of India (Sir Verney Lovett).  
Citizenship in India (Captain P. S. Cannon).  
India in 1928-29 (J. Coatman).  
India (Nations of To-day Series). (Sir Verney Lovett).

**B.—BOOKS ON SPECIAL PORTIONS OF THE EMPIRE OR WORLD.**

- The Rise and Expansion of British Dominions in India (Sir A. O. Lyall, 1894).  
A Brief History of the Indian Peoples (Sir W. H. Hunter, 1907).  
The Nearer East (Hogarth, 1902).  
Modern Egypt (Gromer, 1908).  
Egypt and the Army (Elgood, 1924).  
The History of Canada (W. L. Grant).  
Nova Scotia (B. Wilson, 1911).  
Report on British North America (Sir O. P. Lucas).  
The Union of South Africa (R. H. Brand, 1909).  
Short History of Australia (E. Scot).  
History of the Australasian Colonies (Jenks, 1912).  
The English in the West Indies (J. A. Froude, 1888).  
The Lost Possessions of England (W. F. Lord, 1896).  
International Relations of the Chinese Empire (H. B. Mosse).  
(Kelly and Walsh, Shanghai).  
What's Wrong with China ? (Gilbert).  
Why China Sees Red (Putman-Weale).  
Napoleon's Campaigns in Italy (Lieut.-Col. R. G. Burton).

12.—*Military Geography.*

Naval and Military Geography of the British Empire (Dr. Vaughan Cornish, 1916).

Imperial Military Geography (Capt. D. H. Cole, 1928).

Introduction of Military Geography (Col. E. S. May).

Imperial Defence (Col. E. S. May).

Main Feature of the Japanese and other Pacific Problems.

(Reprinted from *Morning Post*. Sifton Præd).

Britain and the British Seas (H. J. Makinder, 1907).

Military Geography (Macguire).

Imperial Strategy (Repington).

War and the Empire (H. Foster).

Historical Geography of British Colonies (Dominions), 7 Vols.

(Sir C. P. Lucas, 1906-17)—

Vol. 1, Mediterranean.

Vol. 2, West Indies.

Vol. 3, West Africa.

Vol. 4, South Africa.

Vol. 5, Canada.

Vol. 6, Australia.

Vol. 7, India.

The Influence of Sea Power on History (A. T. Mahan, 1890).

Historical Geography of the British Empire (Hereford George).

The Mastery of the Pacific (A. R. Colquhoun, 1902).

Frontiers (C. B. Fawcett, 1918).

13.—*Foreign Armies.*

## OFFICIAL.

\* Handbook of the United States Army, 1924.

\* Handbook of the Army of the Netherlands, 1922.

\* Handbook of the French Army, 1925.

\* Handbook of the Belgian Army, 1926.

\* Handbook of the Polish Army, 1927.

\* Handbook of the Army of the Kingdom of Serbs, Croats and Slovenes (Yugo-Slavia) 1927.

\* Handbook of the Czechoslovak Army, 1927.

\* Handbook of the Swiss Army, 1924.

\* Handbook of the German Army, 1928.

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\*NOT to be removed from the Library.

14.—*Tactical.*

Common mistakes in the solution of tactical problems and how to avoid them (Lieut.-Colonel A. B. Beauman, 1926).

Historical illustrations to Field Service Regulations, Vol. II (Major E. G. Eady, 1926).

Elementary Tactics or the Art of War, British School (Major R. P. Pakenham-Walsh, 1927).

## III.—Payment for Articles in the Journal.

Articles accepted for publication in the Journal are paid for, and a sum of approximately Rs. 750 is awarded for articles and reviews published in each Quarterly Journal.

## IV.—Contributions to the Journal.

Articles submitted for publication must be typed in *duplicate*. With reference to Regulations for the Army in India, paragraph 204 and King's Regulations, paragraph 522, action to obtain the sanction of His Excellency the Commander-in-Chief to the publication of any article in the Journal of the United Service Institution of India will be taken by the Committee.

*Instructions for the preparation of drawings and plans for reproduction by lithography.*

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## V.—Library Rules.

1. The Library is only open to members and honorary members of the United Service Institution of India. Members are requested to look upon books as not transferable to their friends.

2. No book shall be taken from the Library without making the necessary entry in the register. Members residing permanently or temporarily in Simla are requested to enter their addresses.

3. The United Service Institution of India is open all the year round—including Sundays—from 9 A.M. until sunset. Books may be taken out at any time provided Rule 2 is complied with.

4. A member shall not be allowed, at one time, more than three books or sets of books.

5. Papers, magazines, "works of reference" or books marked "Not to be Taken Away," or noted as "Confidential" may not be removed.

6. No particular limit is set as to the number of days for which a member in Simla may keep a book, the Council being desirous of making the library as useful as possible to members; but if after the expiration of a fortnight from date of issue it is required by any other member it will be re-called.

7. Applications for books from members at out-stations are dealt with as early as possible, and books are despatched per Registered P. P. They must be returned carefully packed per Registered Parcel Post within one month of date of issue.

8. If a book is not returned at the end of one month, it must be paid for without the option of return, if so required by the Executive Committee.

9. Lost and defaced books shall be replaced at the cost of the member to whom they were issued. In the case of lost books which are out of print the value shall be fixed by the Executive Committee, and the amount, when received, spent in the purchase of a new book.

10. The issue of a book under these rules to any member implies the latter's compliance with the rules, and the willingness to have them enforced, if necessary, against him.

11. A list of all books presented and purchased, and also a list of books useful to members studying for the Staff College and Promotion Examinations, will be found under Secretary's Notes in the quarterly issue of the U. S. I. Journal.

12. Members are invited to contribute presents of books, maps and photographs of naval and military interest. These may be addressed to the Secretary, U. S. I. of India, Simla. They will be duly acknowledged.

#### **VI.—Library Catalogue.**

The catalogue is completed to 31st March 1924. Price Rs. 3-8-0 or postage paid Rs. 3-14-0. An addendum completed up to 30th September 1927 is available. Price As. 8 *plus* postage As. 4.

## VII.—Army List Pages.

The U. S. I. is prepared to supply members and units with manuscript or type-written copies of Indian Army List pages, at the rate of Rs. 2 per manuscript or type-written page.

## VIII.— BOOKS PRESENTED.

	<i>Title.</i>	<i>Published.</i>	<i>Author.</i>
1.	The History of Probyn's Horse... (Presented by the Officers of the Regiment.)	1929.	Major C. A. Boyle.
2.	The Annual Report of the Smithsonian Institute, 1928.	1929.	..
3.	History of the 3rd (Q. A. O.) Gurkha Rifles. (Presented by the author.)	1929.	Major-General N. G. Woodyatt.
4.	Sherman—The Genius of the Civil War. (Presented by Messrs. Ernest Benn, Ltd., London.)	1930.	B. H. Liddell-Hart.
5.	Historical Illustrations to F. S. R. Operations, 1929. (Presented by Messrs. Sifton Praed & Co., Ltd., London.)	1930.	Major H. G. Eady.
6.	India in 1928-29 .. .. (Presented by the Government Central Publication Branch, Calcutta.)	1930.	J. Coatman.
7.	Historical Records of the 20th (D. C. O.) Infantry-Brownlow's Punjabis, Vol. II—1909-1922. (Presented by the Officers of the Regiment).	..	..

## BOOKS PURCHASED.

	<i>Title.</i>	<i>Published.</i>	<i>Author.</i>
1.	Whitaker's Almanack, 1930 .. ..	..	J. Whitaker.
2.	Genghis Khan—Emperor of all men.	1928.	Harold Lamb.
3.	Tamerlane—The Earth Shaker ..	1929.	Harold Lamb.
4.	Air Defence .. ..	1929.	Major-General E. B. Ashmore.
5.	Military Organization and Administration, 9th edition.	1930.	Lt.-Colonel W. G. Lindsell.
6.	The Amazing Career of Bernadotte, 1763—1844.	1929.	Sir D. P. Barton.
7.	A Soldier's Diary of the Great War.	....	H. Williamson.



## BOOKS ON ORDER.

<i>Title.</i>	<i>Published.</i>	<i>Author.</i>
1. Open House in Flanders ..	..	Baroness E. de la Grange.
2. Sovereignty of the British Dominions.		A. B. Keith.
3. A Subaltern's War .. ..	..	Edmonds.
4. The History of the Army Ordnance Services.		Major-General A. Forbes.
5. Biography of the Late Marshal Foch.		Major-General Sir G. Aston.
6. Captain Scott .. ..	..	Stephen Gwynn.
7. The Naval Blockade, 1914—1918		Louis Guichard.
8. The History of the British Army, Vol. XIII.		Sir John Fortescue.
9. The Colonial Service ..	..	Sir Anton Bertram.
10. Dominion Autonomy in Practice		A. B. Keith.
11. An Outline History of the Great War.		Major G. V. Carey and Capt. H. S. Scott.
12. The Mediterranean and its Problems.		W. Polson-Newman.
13. Germany Surrenders June 1917—The Cavalry Went Through.		John Buchan.

## IX.—Schemes.

The schemes in the Institution have been considerably increased and in order to simplify their issue they have been classified and numbered as follows.

They can all be obtained by V. P. P., *plus* postage, on application to the Secretary.

(A) *Administrative Exercise, with diagram.* (Reprinted May, 1928).

To illustrate the supply system of a Division (suitable for Staff College or Promotion) .. Rs. 2

(B) *Mountain Warfare* (Reprinted May, 1928).

(i) A scheme complete with map and solution .. .. 2-8

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(C) *Staff College Series (Reprinted May, 1928)*. Complete with maps and solutions :—

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Orders for night attack .. .. Rs. 2-3

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Defence.

Action of a Force Retiring .. .. „ 2-3

iii) Move by M. T.

Occupation of a defensive position.

Counter-attack .. .. „ 2-8

(D) *Promotion Series (Reprinted May, 1928)*. Complete with maps and solutions.

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(ii) Defence.

Attack orders .. .. 2-8

*Captain to Major—*

(i) Outposts.

Defensive position.

Withdrawal .. .. 2-3

(ii) Tactical Exercise without troops.

Reconnaissance.

Attack orders .. .. „ 2-8

(E) Course of five lectures given at the London School of Economics, 1925, on "Transportation in War." As. 12.

(F) *Staff College Course Schemes (1928)* :—

(i) A set of three schemes, as given at the Army

Headquarters Staff College Course, 1928, comp-

lete with maps and solutions, complete set .. Rs. 5

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Officers are recommended to work all their schemes against time and to get into the habit of the methodical allotment of time to the various questions asked.

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- 1872..ROBERTS, Lieut.-Col. F. S., v.c., c.b., r.a.  
 1873..COLQUHOUN, Capt. J. S., r.a.  
 1874..COLQUHOUN, Capt. J. S., r.a.  
 1879..ST. JOHN, Maj., O.B.C., r.e.  
 1880..BARROW, Lieut. E. G., 7th Bengal Infantry.  
 1882..MASON, Lieut. A. H., r.e.  
 1883..COLLEN, Maj. E. H. H., s.c.  
 1884..BARROW, Capt. E. G., 7th Bengal Infantry.  
 1887..YATE, Lieut. A. C., 27th Baluch Infantry.  
 1888..MAUDE, Capt. F. N., r.e.  
     YOUNG, Maj. G. F., 24th Punjab Infantry (specially awarded a silver medal).  
 1889..DUFF, Capt. B., 9th Bengal Infantry.  
 1890..MAGUIRE, Capt. C. M., 2nd Cav. Hyderabad Contingent.  
 1891..CARDEW, Lieut. F. G., 10th Bengal Lancers.  
 1893..BULLOCK, Maj. G. M., Devonshire Regiment.  
 1894..CARTER, Capt. F. C., Northumberland Fusiliers.  
 1895..NEVILLE, Lieut.-Col. J. P. C., 14th Bengal Lancers.  
 1896..BINGLEY, Capt. A. H., 7th Bengal Infantry.  
 1897..NAPIER, Capt. G. S. F., Oxfordshire Light Infantry.  
 1898..MULLALLY, Maj. H., r.e.  
     CLAY, Capt. C. H., 43rd Gurkha Rifles (specially awarded a silver medal).  
 1899..NEVILLE, Col. J. P. C., s.c.  
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     LUBBOCK, Capt. G., r.e. (specially awarded a silver medal).  
 1901..RANKEN, Lieut.-Col. G. P. P., 46th Punjab Infantry.  
 1902..TURNER, Capt. H. H. F., 2nd Bengal Lancers.  
 1903..HAMILTON, Maj. W. G., d.s.o., Norfolk Regiment.  
     BOND, Capt. R. F. G., r.e. (specially awarded a silver medal).  
 1904..MACMUNN, Maj. G. F., d.s.o., r.f.a.  
 1905..COOKERILL, Maj. G. K., Royal Warwickshire Regiment.  
 1907..WOOD, Maj. E. G. M., 99th Deccan Infantry.  
 1908..JEUDWINE, Maj. H. S., r.a.  
 1909..MOLYNEUX, Maj. E. M. J., d.s.o., 12th Cavalry.  
     ELSMIE, Maj. A. M. S., 56th Rifles, F. F. (specially awarded a silver medal).  
 1911..Mr. D. PETRIE, m.a., Punjab Police.  
 1912..CARTER, Maj. B. C., The King's Regiment.  
 1913..THOMSON, Maj. A. G., 58th Vaughan's Rifles (F. F.).  
 1914..BAINBRIDGE, Lieut.-Col. W. F., d.s.o., 51st Sikhs (F. F.).  
     NORMAN, Maj. C. L., m.v.o., Q. V. O. Corps of Guides (specially awarded a silver medal).  
 1916..CRUM, Maj. W. E., v.d., Calcutta Light Horse.  
 1917..BLAKER, Maj. W. F., r.f.a.  
 1918..GOMPERTZ, Capt. A. V., m.c., r.e.  
 1919..GOMPERTZ, Capt. M. L. A., 108th Infantry.  
 1920..KEEN, Lt.-Col. F. S., d.s.o., 2/15th Sikhs.  
 1922..MARTIN, Maj. H. G., d.s.o., o.b.e., r.f.a.  
 1923..KEEN, Col. F. S., d.s.o., i.a.  
 1926..DENNYs, Maj. L. E., m.c., 4/12th Frontier Force Regiment.  
 1927..HOGG, Maj. D. Mc. A., m.c., r.e.  
 1928..FRANKS, Maj. K. F., d.s.o., 5th Royal Mahrattas.  
 1929..DENNYs, Maj. L. E., m.c., 4/12th Frontier Force Regiment.

## MACGREGOR MEMORIAL MEDALS.

1. The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major-General Sir Charles MacGregor. The medals are awarded for the best military reconnaissances or journeys of exploration of the year.

2. The following awards are made annually in the month of June :—

(a) For officers—British or Indian—silver medal.

(b) For soldiers—British or Indian—silver medal, with Rs. 100 gratuity.

3. For especially valuable work a gold medal may be awarded in place of one of the silver medals, or in addition to the silver medals, whenever the administrators of the fund deem it desirable. Also the Council may award a special additional silver medal, without gratuity, to a soldier, for especially good work.

4. The award of medals is made by His Excellency the Commander-in-Chief, as Vice-Patron, and the Council of the United Service Institution who were appointed administrators of the Fund by the MacGregor Memorial Committee.

5. Only officers and soldiers belonging to the Army in India (including those in civil employ) are eligible for the award of the medal.\*

6. The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal.†

### *Note.*

(i) Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal; but in the event of two journeys being of equal value, the man who has run the greater risk will be considered to have the greater claim to the reward.

(ii) When the work of the year has either not been of sufficient value, or has been received too late for consideration before the Council Meeting, the medal may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief to deserve it.

### MacGregor Memorial Medallists.

*(With rank of officers and soldiers at the date of the Award.)*

1889..BELL, Col. M. S., V.C., R.E. (specially awarded a gold medal).

1890..YOUNGHUSBAND, Capt. F. E., King's Dragoon Guards.

\* *N. B.* —The terms "officer" and "soldier" include those serving in the British and Indian armies and their reserves, also those serving in Auxiliary Forces, such as the Indian Auxiliary and Territorial Forces and Corps under Local Governments, Frontier Militia, Levies and Military Police, also all ranks serving in the Indian States Forces.

† Replacements of the ribbon may be obtained on payment from the Secretary. U. S. I., Simla.

MacGregor Memorial Medallists—(contd.).

- 1891..SAWYER, Maj. H. A., 45th Sikhs.  
       RAMZAN KHAN, Havildar, 3rd Sikhs.
- 1892..VAUGHAN, Capt. H. B., 7th Bengal Infantry.  
       JAGGAT SINGH, Havildar, 19th Punjab Infantry.
- 1893..BOWER, Capt. H., 17th Bengal Cavalry (especially awarded a gold medal).  
       FAZALDAD KHAN, Dafadar, 17th Bengal Cavalry:
- 1894..O'SULLIVAN, Maj. G. H. W., R.E.  
       MULL SINGH, Sowar, 6th Bengal Cavalry.
- 1895..DAVIES, Capt. H. R., Oxfordshire Light Infantry.  
       GANGA DYAL SINGH, Havildar, 2nd Rajputs.
- 1896..COOKERILL, Lieut. G. K., 28th Punjab Infantry.  
       GHULAM NABI, Sepoy, Q. O. Corps of Guides.
- 1897..SWAYNE, Capt. E. J. F., 10th Rajput Infantry.  
       SHAHZAD MIR, Dafadar, 11th Bengal Lancers.
- 1898..WALKER, Capt. H. B., Duke of Cornwall's Light Infantry.  
       ADAM KHAN, Havildar, Q. O. Corps of Guides.
- 1899..DOUGLAS, Capt. J. A., 2nd Bengal Lancers.  
       MIHR DIN, Naik, Bengal Sappers and Miners.
- 1900..WINGATE, Capt. A. W. S., 14th Bengal Lancers.  
       GURDIT SINGH, Havildar, 45th Sikhs.
- 1901..BURTON, Maj. E. B., 17th Bengal Lancers.  
       SUNDAR SINGH, Colour Havildar, 31st Burmah Infantry.
- 1902..RAY, Capt. M. R. E., 7th Rajput Infantry.  
       TILBIR BHANDARI, Havildar, 9th Gurkha Rifles.
- 1903..MANIFOLD, Lieut.-Col. C. C., I.M.S.  
       GHULAM HUSSAIN, Lance-Dafadar, Q. O. Corps of Guides.
- 1904..FRASER, Capt. L. D., R.G.A.  
       MOGHAL BAZ, Dafadar, Q. O. Corps of Guides.
- 1905..RENNICK, Maj. F., 40th Pathans (especially awarded a gold medal).  
       MADHO RAM, Havildar, 8th Gurkha Rifles.
- 1906..SHAHZADA AHMAD MIR, Risaldar, 36th Jacob's Horse.  
       GHAFUR SHAH, Lance-Naik, Q. O. Corps of Guides Infantry.
- 1907..NANGLE, Capt. M. C., 92nd Punjabis.  
       SHEIKH USMAN, Havildar, 103rd Mahratta Light Infantry.
- 1908..GIBBON, Capt. C. M., Royal Irish Fusiliers.  
       MALANG, Havildar, 56th Punjab Rifles.
- 1909..MUHAMMAD RAZA, Havildar, 106th Pioneers.

## MacGregor Memorial Medallists—(concl'd.).

- 1910..SYKES, Maj. M., O.M.G., late 2nd Dragoon Guards (specially awarded a gold medal).  
TURNER, Capt. F. G., R.E.  
KHAN BAHADUR SHEER JUNG, Survey of India.
- 1911..LEACHMAN, Capt. G. E., The Royal Sussex Regiment.  
GURMUKH SINGH, Jemadar, 93rd Burmah Infantry.
- 1912..PRITCHARD, Capt. P. P. A., 83rd Wallahabad Light Infantry (specially awarded a gold medal).  
WILSON, Lieut. A. T., O.M.G., 32nd Sikh Pioneers.  
MOHIBULLA, Lance-Dafadar, Q. V. O. Corps of Guides.
- 1913..ABBAY, Capt. B. N., 27th Light Cavalry.  
SIRDAR KHAN, Sowar, 39th (K. G. O.) Central India Horse.  
WARATONG, Havildar, Burmah Military Police (specially awarded a silver medal).
- 1914..BAILEY, Capt. F. M., I.A. (Political Department).  
MORSHEAD, Capt. H. T., R.E.  
HAIDAR ALI, Naik, 106th Hazara Pioneers.
- 1915..WATERFIELD, Capt. F. C., 45th Rattray's Sikhs.  
ALI JUMA, Havildar, 106th Hazara Pioneers.
- 1916..ABDUR RAHMAN, Naik, 21st Punjabis.  
ZARGHUN SHAH, Havildar, 58th Rifles (F. F.) (specially awarded a silver medal).
- 1917..MIAN AFRAZ GUL, Sepoy, Khyber Rifles.
- 1918..NOEL, Capt. E. W. C. (Political Department).
- 1919..KEELING, Lieut.-Col. E. H., M.O., R.E.  
ALLA SA, Jemadar, N. E. Frontier Corps.
- 1920..BLACKER, Capt. L. V. S., Q. V. O. Corps of Guides.  
AWAL NUR, C. Q. M. Havildar, 2nd Bn., Q. V. O. Corps of Guides. (Special gratuity of Rs. 200.)
- 1921..HOLT, Maj. A. L., Royal Engineers.  
SHEER ALI, Sepoy No. 4952, 106th Hazara Pioneers.
- 1922..ABDUL SAMAD SHAH, Capt., O.B.E., 31st D. C. O. Lancers.  
NUR MUHAMMAD, Lance-Naik, 1st Guides Infantry, F. F.
- 1923..BRUCE, Capt. J. G., 2/6th Gurkha Rifles.  
SOHBAT, Head Constable, N.-W. F. Police.  
HARI SINGH THAPA, Survey Department (specially awarded a silver medal).
- 1924..HAVILDAR RAHMAT SHAH, N.-W. F. Corps.  
NAIK GHULAB HUSSAIN, N.-W. F. Corps.
- 1925..SPEAR, Capt. O. R., 5/13th Frontier Force Rifles.  
JABBAB KHAN, Naik, 5/13th Frontier Force Rifles.
- 1926..HARVEY-KELLY, Maj. C. H. G. H., D.S.O., 4/10th Baluch Regiment.
- 1927..LAKE, Maj. M. C., 4/4th Bombay Grenadiers.
- 1928..BOWERMAN, Capt. J. F., 4/10th D. C. O. Baluch Regiment.  
MUHAMMED KHAN, Havildar, Zhob Levy Corps.  
ABDUL HANAN, Naik, N.-W. F. Corps. (With gratuity of Rs. 100.)  
HULAM ALI, Dafadar, Guides Cavalry (specially awarded a silver medal).





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### EDITORIAL.

The term *Satyagraha* is derived from the two Sanskrit words, *satya*, truth, and *agraha* insisting on, seeking or grasping. In its literal meaning, therefore, *Satyagraha* is the insisting on or seeking of truth. The word is a modern compound not found in ancient Sanskrit or Hindi, and has been devised in recent times to denote a certain method of action undertaken to attain political ends. The usual English translations, soul-force, passive resistance and non-violence, have actually no direct etymological connection with the roots of the word, and arise from the fact that a follower of *Satyagraha*, is, or should be, one who practises *ahinsa*, or non-violence. In effect, *Satyagraha* is a high-sounding phrase which may have no more real relationship to the thing it designates than had the title of Holy Roman Empire to the confederation of German states that went by that name at the end of the eighteenth century.

The essence of *Satyagraha* is its insistence on non-violence. It teaches that in no circumstances should resort be had to actual violence. Its disciples must be prepared to allow any form of physical force to be used against them without offering more than a purely passive resistance. The moment a *Satyagrahi*, whatever the provocation, takes up a weapon or raises his hand against either his opponent's person or property, or incites others to do so, he has violated the main article of his faith and has ceased to be a *Satyagrahi*. It is conceivable that such a movement, conducted on a wide scale and taking the form of mass civil disobedience of unpopular laws or of wholesale refusal to pay taxes, might, in certain circumstances, paralyse any government. But for its success two conditions are essential:—

- (i) The government against which the *Satyagraha* is directed must, itself, refrain from the unrestricted use of the force at its disposal, and,

- (ii) The *Satyagrahis* must remain strictly true to their own doctrine of non-violence.

In India, to-day, the first of these conditions is fulfilled ; the second is not.

\* \* \* \* \*

Should *Satyagraha* be met by the ruthless and unlimited employment of violence the movement must fail. Of what avail would be the *Satyagraha* of the defenders of a modern Somnath against a twentieth century Mahmud of Ghazni ? If they lay across the rails in front of his troop trains, would that stop his movements ? If they collected around his salt depôts, would his polite policemen meet them with a non-violence rivalling their own ? No, those who sought martyrdom would find it. The supply of true martyrs is limited, and, in a very short time, *Satyagraha* would be as dead as its leading advocates.

But the Englishman is, of all people, least fitted to play such a rôle. The *Satyagrahi*, however much he may revile the Government, knows full well that it would never employ against him the methods that former foreign rulers used against his Hindu ancestors. He knows that the policy of any British administration must, simply because it is British, be to refrain from using force until compelled by the violence of its enemies, and, even then, to use it only to the minimum extent. The exponent of civil disobedience, relying on this fact, strains his non-violent creed to the utmost, confident that he can do so at little or no physical risk to himself. Against no Asiatic power would *Satyagraha* be attempted, and from no other European power would it receive such gentle treatment. By so confidently employing it in India, the leaders of this movement unconsciously pay the highest tribute to British restraint, humanity and civilization.

On the other hand, the second essential for the success of *Satyagraha*—the non-violence of its disciples—is not so conspicuously present. For this there are two reasons. First, the unfitness of the bulk of the followers of the movement for non-violent agitation, and, secondly, the gradual change in the attitude of the leaders themselves.

To be successful the movement had to be a mass one ; it had to include thousands, especially of the poorer classes. It was easy to attract them with specious promises, untrue propaganda, and alluring visions of non-payment of taxes, but not so easy to keep these ignorant and misguided crowds to the path of non-violence. Even had their

leaders really believed in the creed to which they paid such glib lip-service, they could not have controlled them. As it was, the professional agitators, who formed the bulk of the minor leaders, did not hesitate indirectly to encourage violence in their speeches, while their every action was directed to provoking an actual conflict with the authorities.

Even Mr. Gandhi, himself the apostle of *ahinsa*, gradually abandoned his respect for and faith in non-violence. Prior to leaving Ahmedabad for Dandi, he harped on the essentially non-violent nature of civil disobedience, and even stated that if violence broke out he would stop the movement. But as he progressed towards the sea, disappointed with the results of his march and piqued by the government's refusal to arrest him, his tone changed. At Borsad, at Ras, and at several places in Surat district, he gave vent to expressions that were nothing less than indirect incitements to violence. Later, stung by the ridicule that followed the confiscation of the salt manufactured by his volunteers, he urged them repeatedly to resist the police to the death and until blood was shed. His directions for the social boycott of minor Government officials could not be carried out without, at least the threat, of personal violence. When, as was to be expected, his movement resulted in riots all over India, Gandhi showed himself at each fresh outbreak less and less concerned to condemn the violence of his followers. Finally, his plan for the forcible seizure of the Dharasna Salt Depôt was offensive violence, pure and simple, entailing the complete abandonment of his once precious *ahinsa*.

\* \* \* \* \*

Not only has *Satyagraha* drifted with increasing rapidity towards violence, but it long ago gave up all pretence of living up to its title of "insisting on truth." Its chief weapon is a propaganda, not only widespread, continuous, and energetic, but shamelessly mendacious. However much the army may wish, rightly, to hold aloof from politics, it is here closely involved, for, not only is it called upon to support the civil power in its arduous task of maintaining order, but the Indian Army has to withstand the ceaseless attack of this propaganda.

Congress recognizes fully the fact that the authority of any government rests ultimately on its army, and it is well known that a determined offensive against the loyalty of the sepoy forms one of the main items in the seditionists' programme. There need be no fear of the

result; the Indian soldier's honour and common sense will carry him through unshaken. But he would be more than human if this propaganda did not cause him some anxiety. Maliciously distorted accounts of disturbances in his home districts, untrue reports of the desecration of his sacred buildings, and wild rumours of coming political changes, may make him at times anxious for his family, his religion and his own future. Everything must be done to protect the sepoy from this strain.

There are two ways of dealing with propaganda of this kind—one, to stifle it at its source, and the other to neutralize it by counter-propaganda. The first, prevention, is a matter outside the power of the Army, but the second, cure, is largely within its scope. There is always a tendency to complain that Government counter-propaganda is slow and not in sufficient volume. The difficulties are many. To begin with the initiative always rests with the seditionist. All he has to do is to think of a good lurid lie and start it on its travels; the Government repudiation must inevitably lag some distance behind. By the time the lie is brought to official notice it has probably gained a wide circulation. An investigation into the actual facts must then be held, references made to local authorities, legal aspects examined, and the communiqué drafted, accepted, and published. The start that the poison thus gets over its antidote makes it all the more necessary that every possible step should be taken to render the soldier immune from its effects. On the British officers of the Indian Army first falls this responsibility of protecting their men. They begin with the immense advantage of possessing their complete confidence, and they have many means by which they can supplement the more official counter-measures. The most effective and appreciated of these is, perhaps, the informal discussion of current topics with Indian officers and non-commissioned officers. It is a mistake to avoid such subjects. The Indian soldier hears only too much of them in the bazaar, the railway carriage, and even in his own village, but, unfortunately, he hears practically only one side. A talk about these matters with one of his own officers, whom he trusts and who understands his point of view, will do more to relieve the anxiety he may feel than any amount of more formal explanation. Wise officers will take every opportunity, in this way, to give their men a clearer view of the issues and events of the daily struggle between law and order and sedition.

No comments, in a Service periodical, on the present situation would be complete without a tribute to the spirit of the Indian Police. They, indeed, have to bear the heat and burden of the day. Their loyalty, restraint, good humour, and courage in the face of every trial are the admiration of the Services in India. Not a few soldiers have recently had some slight experience of the duties that normally fall to the lot of the Police, and this has enabled the Army as a whole to realize more fully the severity of the strain placed on the Police, and how magnificently they endure it. It may be some consolation to them to know that they have earned the admiration of the Services, and can, if necessary, rely on a more practical form of support in their arduous task, should it, unfortunately, be required.

## THE ARMY, THE NATION, AND THE MACHINE.

By

LIEUT.-COL. F. DICKINS, I.A.O.C.

### *Part I.—The Army and the Nation.*

One of the unexpected results of the Great War has been a cheapening of the regular army in the eyes of the nation. This regrettable tendency is reflected in the difficulties experienced in recruiting both for officers and for the rank and file, for reasons into which it is not necessary here to enter at great length. It will be sufficient to note that among them are an easily understood hatred of war, the modern and, let us hope, temporary revolt against any form of discipline, and the discovery on the part of the temporary officer that, after all, the regular officer is a human being like himself, and just as prone to human weakness and error.

Up to the time of the South African War, the British army was a small, self-contained, and, it must be confessed, self-satisfied entity that led an isolated existence, widely divorced from the national life. There was very little mutual sympathy and understanding between soldier and civilian, with the natural result that ignorance led to antipathy. Hence lines like those of Mr. Kipling:—

“ We serve no red-coats here ” and “ Thank you, Mr. Atkins ; when the band begins to play.”

After the South African war, thanks to Mr. Haldane, who got very little in the way of thanks during his life, matters took a turn for the better, and, largely through the means of the Territorial Force, the nation in general began to take more interest in army affairs. But there was very little indication that the regular army had acquired a sense of citizenship, that is to say, had begun to try and understand the realities of national life from a civilian's point of view, and to play its part in that national life. It still remained too purely technical and stood too aloof. Yet it was becoming apparent, as the years went by, that any European war, in which we might have the misfortune to become involved, would call for a united effort on the part of the whole nation. It was not till the Great War was well advanced that the army, as well as the nation at large, realised that war was not the

prerogative of the army alone, and that war on a large scale could never be won by the unaided efforts of the army. The lesson, learnt at such bitter cost, is now in danger of being forgotten again by the multitude, and, although it is recognised by those in authority, it is very doubtful whether either the nation or the army itself quite recognises the necessity for united action in peace, or, if in some dim way they do recognise it, whether there is any clear conception as to how such united action should be effected.

Even within the magic confines of the army itself, the absolute necessity for co-ordination between the various branches of the army is by no means fully visualised. Co-ordination implies something more than merely passing files backwards and forwards between the various branches of army headquarters, and making copious notes thereon. There can be no manner of co-operation between different activities unless there is mutual understanding and sympathy, and this cannot be achieved unless there is mutual instruction. Co-operation between the combatant branches is understood and practised, but co-operation between the financial, the technical, the supply, the transport, and the training and strategical branches is not so marked, with the consequence that mutual ignorance clogs the whole machinery. And if that is the case within the army, how much more exaggerated is the fissure between the army as a whole and the national life.

There is in existence, and always will be, a school of thought which sees in any standing army a standing menace to the peace of the world, and consequently a standing menace to the well-being of the nation. This opinion is held by people whose intelligence is of a very high order, and who, therefore, cannot be neglected. This cry for disarmament is merely an expression of fear lest the world should once more be dragged into a ruinous war at the call of irresponsible war-lords. If we in the army are of an opposite opinion and consider that a standing army is merely an insurance, first, against war, and, secondly, against defeat in war, we must be prepared to prove our point, for, however much we may be convinced of our infallibility, conviction is not proof.

On the other hand, there is, unfortunately, too large a proportion of the nation which cannot admit that war is a national concern at all, but is convinced that it lies entirely within the province of the fighting forces. This attitude is a very natural one, because, in the old days, for centuries war was never national in England, but was



simply the business of statesmen and soldiers. You may read all the "society" novels written during the wars with Napoleon and hardly a reference will you find to the fact that we were engaged in a life and death struggle. I would instance the novels of Jane Austen.

There is, thus, a hereditary tendency for the nation to relegate the army into an enclave, over whose boundaries it is not meet nor seemly for the civilian to trespass, with the obvious result that the army is shut away from the national life, and is led to consider itself as something not merely separate from the rest of the country, but actually as something superior to it. This fatal attitude, at its worst, cannot but end in the development of a military caste or hierarchy, which is totally out of sympathy with the rest of the population, and which, by reason of its own narrow bounds and experience, exhibits a restricted outlook towards the world in general, that in turn has a deadening influence on its own intellectual growth, and so inhibits its own technical military advancement.

It is within the experience of any observer that there still exists a type of officer who refuses to admit that any one can deem himself worthy of consideration unless he has been nurtured in the chaste cloisters of Woolwich or Sandhurst, and who regards with pity those unfortunates who have been condemned to follow any other profession. The quite kindly contempt—perhaps this is too strong a word—felt by men of this type for the outcast who has sunk so low as to go into business, is only equalled by the total disregard held by certain business men for the whole military profession. Yet the soldier expects the nation to honour and to believe in him, while the nation is always prepared to indulge in an orgy of sentimentality on the return of the hero.

It is really a form of snobbishness displayed by both parties, and equally discreditable to their intelligence and their patriotism. Not by way of ignorance and neglect shall we find that spirit of co-operation which alone can lead to national success in war or, indeed, in peace. The polo-player has his place in the sun, but it is no larger than the place occupied by the man at the forge or the loom, and is less directly useful to the nation at large.

The tendency on the part of the army to drift into a cloistered existence is the natural outcome of a small professional army in a country where conscription is regarded as the invention of the devil. Perhaps it is; for in a more happily constituted world there would

be no necessity for any country to adopt conscription. But it is an outcome which should be discounted, because the smaller the army, the greater the need to guard against this very danger. In other words, there is perhaps a greater obligation on the British army than on any other army, save the American, not to lose its identity with the national life, if it is to expect the country to understand its essential duties and its *raison d'être*. The army, then, has a very definite duty to educate the country, and by that very action will it, in turn, be educated as to the attitude it ought to adopt towards the country, namely, that of a professional nucleus round which, in times of stress, the whole nation can rally, and so march to war as one united whole. There can be hardly any argument that this system of what amounts to reciprocal education can never be initiated unless the army realises more of the conditions of civil life, of the interlocking of the various professions and industries and of their relations to its technical requirements. While it is for the civilian to realise that a soldier is not necessarily a "militarist," whatever that catch word may really mean, but a servant of the State who is only too anxious to do his duty by the State.

The mutual ignorance that exists at present is almost incredible. If one attempts to discuss a military subject with a civilian, one is frequently confronted with the enormous difficulty of carrying on an argument with a person who is completely ignorant of the matter under discussion, but who, at the same time, does not hesitate to express his convictions with unshakable prejudice. His mind is made up, and there it is. But the civilian's ignorance of, and lack of interest in, military affairs are no whit more appalling than the soldier's about the details of, let us say, industrial facts and necessities.

One is sometimes tempted to believe that such articles as arms and ammunition are considered by certain individuals to owe their production to a sort of spontaneous generation. When the regimental quartermaster indents for stores, he hopes that, sooner or later, he will get them, and beyond that he is not interested. When a Principal Staff Officers' meeting inaugurates increases or decreases in scales of equipment or admits or refuses schedules submitted to it, an extraordinarily long chain of activities may be set in motion, even unto the other side of the world. When Private Smith drops a cartridge into a river, the effect will be felt in the nitrate industry of South America. And if the C. O. of the Royal Loamshires allows his men

to purchase their clothing in the bazaar, other men may be thrown out of work, the Priced Vocabulary rates for clothing may have to be increased, and the organisation of the factory concerned may be so thrown out of gear that it will be a matter of difficulty for it to function as required in war. If the General Staff require a million rounds of gun ammunition for certain eventualities in war, it is not much good their drawing up their plans unless they know for certain that there is enough metal in the country, and that the bulk of it is not already ear-marked for a railway. And when they draw up their plans in peace, they must ascertain that the machinery and the machinists are there also, that the skill and the organisation exist, and that the continual flow of raw materials is assured. Unless there is the very closest co-operation between the General Staff and the Master-General of Ordnance branches, that real co-operation which implies a fair knowledge of each other's functions, capacities and limitations, there is not a hope of their requirements being met in the numbers, at the times, and in the places where they want them. While the Master-General of Ordnance branch, in turn, must keep in touch with the Contracts Directorate, and the latter with the trade and the industry of the world.

No one in authority in England or America is under the illusion that, in a war of any magnitude, the army alone can be expected to bear the brunt of the operations, as has too often been the case in the past. It is accepted as a fact that need not even be discussed that the whole industry of the country, and, therefore, by implication the whole country itself, should be so educated and organised that, on the outbreak of war, the attack or the defence will be initiated in the factories and the workshops of the country, in its commerce, and in the hearts of its inhabitants. There can be no question of conscripting the whole country; that would be as unpalatable as impracticable. But industry, and in fact the whole national life, would be so controlled that the whole national effort would be directed towards one end only, namely, the successful prosecution of operations in the field.

This education and preparation is obviously incapable of attainment, unless the army and the nation speak with one voice, think with one mind, are one and indivisible. And how is this possible unless civilian and soldier understand each other's functions and exchange mutual sympathy?

Memories are short, and many of those in authority during the Great War have passed away. In this country of India it is doubtful whether the lesson of the cost in time, money, and more precious life, that is involved during war by a detached attitude on the part of civil and military authorities during peace, has ever been properly appreciated. It is still more doubtful whether the commercial elements have appreciated the lesson at all, while to the younger generation, both civil and military alike, the Great War is little more than a legend, and a rather boring one at that. All the more incumbent, then, is it on those who do know to pass on their knowledge, so that never again may any of us be exposed to the long drawn out misery of those dreadful years of war.

Preparation for war does not involve either the elimination or the invitation of war; semi-preparation is worse than useless. It induces a false feeling of security, it invites attack, and it courts disaster. Happy the nation which, in time of necessity, can take the field as a nation, with all the activities of civil and military life organised and applied to one common end.

*(To be continued.)*

## THE COMMUNICATIONS OF THE BELGIAN CONGO.

By

LIEUT.-COLONEL H. E. CROCKER C.M.G., D.S.O., (retired).

If there is one thing more than another that strikes the traveller in the Belgian Congo, it is the phenomenal development of its communications, by air, land, and water.

The opening up of such a vast territory must, of necessity, be a matter of time, but until one has, like the writer, traversed the country, a large proportion of the journey being made on foot, one can have but a dim idea of the extent of this wonderful development.

An enormous area, especially in the centre, is covered with dense tropical forest, intersected with countless rivers and streams, all of which are liable to flood in the rainy season, *i.e.*, between September and May. They are then transformed into raging torrents, and sweep away bridges and ferries. All motor traffic is suspended until the bridges can be repaired, often a matter of weeks. It would seem worth the expense to construct solid iron and concrete bridges at once and have done with it, but it is unlikely that this will be done for some time to come.

The River Congo, with its two great tributaries, the Ubangi to the north, and the Kasai to the south, form three important natural lines of communication. They are supplemented by an ever increasing network of roads and railways, many already in existence, others only projected. The Ubangi, throughout a large proportion of its course, forms the northern boundary of the Congo Territory. The Kasai is only available for large river steamers for a comparatively short distance, and then, only when the river is high.

The Congo itself flows parallel to the eastern frontier as far north as Stanleyville, whence it follows a magnificent curve to the north-west, and south-west, till it empties itself into the sea at Boma.

Communications within the Congo may be divided into three main groups, *viz* :—

- A. GROUP. Boma to Elizabethville, *via*., the Congo and railway.
- B. GROUP. Boma to Elizabethville, *via*., the Kasai and railway.
- C. GROUP. A network of first class motor roads from Stanleyville to the east and north-east, with branches to the northern frontier.

These roads fall naturally into two main systems; *viz.*

I. To Lake Albert, where they connect with Uganda and Kenya, and

II. To Redjaf on the Nile, connecting with Egypt.

Additional routes, both for road and railway; are being actively surveyed at the present day, and work on some of the lines will, it is said, be started shortly.

We will now consider the routes actually in existence, and afterwards glance at those that are not yet complete.

#### ROUTE A.—BOMA TO ELIZABETHVILLE *via* THE CONGO.

From Boma the traveller ascends the mighty stream of the Congo as far as Stanleyville, where further river progress is barred by rapids. Crossing the river in a ferry steamer, soon to be replaced by a road and railway bridge, he proceeds by train to Ponthierville, where he embarks for Kindu. He then takes the train to Kongolo, in order to avoid the rapids in the river. At Kongolo he embarks for Bukama, where he takes the train to Elizabethville and South Africa, *via* Bulawayo. Between Kongolo and Bukama he passes the station of Kabalo, where he can take the train to Albertville on Lake Tanganyika, and, crossing the lake, he will find himself in direct railway communication with Uganda, Kenya, and Dar-es-Salaam, *via* Tabora.

#### ROUTE B.—THE KASAI TO ELIZABETHVILLE.

The Kasai runs into the Congo some 150 miles above Leopoldville. Steamers ascend eastwards for a distance of about 420 miles as far as Port Francqui, where the traveller entrains and proceeds by rail to Elizabethville *via* Bukama, where, if he wishes, he can detrain, and gain connection with Route A.

Port Francqui is a go-ahead port on the river, with quays where the steamers can make fast. Immense works for quays and railways are in progress, which will bring the train alongside the boat, where travelling overhead cranes will deal with heavy goods. This station is a good example of the efforts of modern progress, and contrasts very favourably with the slipshod methods adopted at Brazzaville, in French Territory, where the traveller lands off the steamer on to the natural mud of the bank, up which he scrambles as best he may.

### ROUTE C.—MOTOR ROADS RADIATING FROM STANLEYVILLE.

These motor roads consist of two principle arteries, *viz* :—

- i. Through Buta to Redjaf, *via* Niangara, and Feradje. At Redjaf they connect with the main routes northwards to Egypt, and southwards to British East Africa.

There is also a northern branch from Buta to various frontier posts adjoining French Territory through which a route has been constructed to Lake Chad.

- ii. From Stanleyville to Irumu, with an extension to Kasenyi on Lake Albert, which is directly connected with Uganda *via* Butiaba and Masindi Port.

The route to Irumu is of recent construction, and the bridges over the big rivers are not yet complete (January 1930).

There is, in addition, a route along the eastern frontier from Irumu, *via* Ruchuru, to Kisenyi on Lake Kivu.

These two main route systems are inter-connected by numerous excellent motor roads, continually in process of expansion, which tap the important mining centre of Kilo.

There is a well organized caravan route for porters between the Uganda frontier post of Kabale, *via* Ruchuru, the Belgian frontier post, and Walikalé, to Lubutu, which is connected with the Lualaba, or Upper Congo, at Kirundu, by a good motor road. There is a project on foot to extend this road further east to the important military station of Pinga, north of Mlisi. Beyond the initial construction, and subsequent maintenance of the bridges, this route would present no serious difficulty. A large proportion of the country to be traversed is, however, low lying and subject to formidable floods during the rainy season.

Kirundu is connected with Stanleyville by steamer as far as Ponthierville, and thence by train.

### AIR ROUTES OF THE BELGIAN CONGO.

Air routes are being developed equally with land routes. A regular mail and passenger service has been established between Boma and Elizabethville *via* Leopoldville, Port Francoqui, and Bukama, with a branch route to Kabalo. There is also a service as far north as Coquilhatville on the Congo. This service is regular and efficient, and an immense weight of mail is carried annually.

**Projected Communications.**

The following railways have been projected, and a certain amount of survey work has already been completed.

*I.—Stanleyville to Redjaf via Panga and Gombari.*

This line would place Stanleyville in direct communication with Egypt *via* the Sudan. There would be an extension to Kilo to serve the mining industry. There are several large rivers to be crossed demanding heavy bridging work.

*II.—Stanleyville to Lake Kivu.*

The route for this line is very undecided at present. A certain amount of survey work has been done, but the direction and ultimate destination of the line has yet to be settled. It is proposed to connect it with a British extension from Kampala, should the line be directed into this district.

There would be many difficulties to be encountered, including swamps and rivers west of the lake, while in the Mlisi area there is a difficult mountain chain with numerous spurs and valleys. It is possible that a long tunnel might prove the easiest and cheapest solution to the difficulty in the end.

*III.—Leopoldville to Port Francqui.*

This line would bridge the only existing gap in the Matadi—Cape Town line. At present passengers have to make the transit by boat up the Kasai river, but when this line, which has already been surveyed, is completed, they will be able to travel direct from the Cape to Matadi without changing. This should have an important bearing on the economic factor of the trade of Northern Rhodesia, and should be of great service to passengers.

The construction of this line will entail the erection of a vast bridge over the Kasai near Port Francqui, where the river is of a considerable width. The site has already been selected, and building work will probably be commenced during 1930.

The Congo is very rich in natural resources. She has mines of gold and copper, while diamonds are found in alluvial washings. The soil, fertilized by countless centuries of rotting trees and vegetation, produces coffee, cotton, rubber, cocoa, oil palms and other



crops in abundance. The oil-bearing palm and cotton are the two principal crops. There are important oil refineries, and an extensive modern cotton mill at Leopoldville. Timber is being exploited, and saw-mills introduced, with up-to-date machinery, in marked contradistinction to the antique hand-saws of the Indian timber yards. Shale oil has been found, but so far in small quantities only.

The development of the railways along the lines indicated above will go far in opening up the country, and promoting cultivation and production. The country is, however, at present passing through a financial crisis owing to a variety of causes, such as over-production and falling prices, and it is doubtful whether a ready market could be found for an increase in production for some time to come.

Whether the railways will pay financially is a matter for the future to show. The maintenance expenses would be high, and it is problematical whether passenger traffic would pay its way. The financial prosperity would depend, then, largely on the freight, which again would depend on production and markets available.

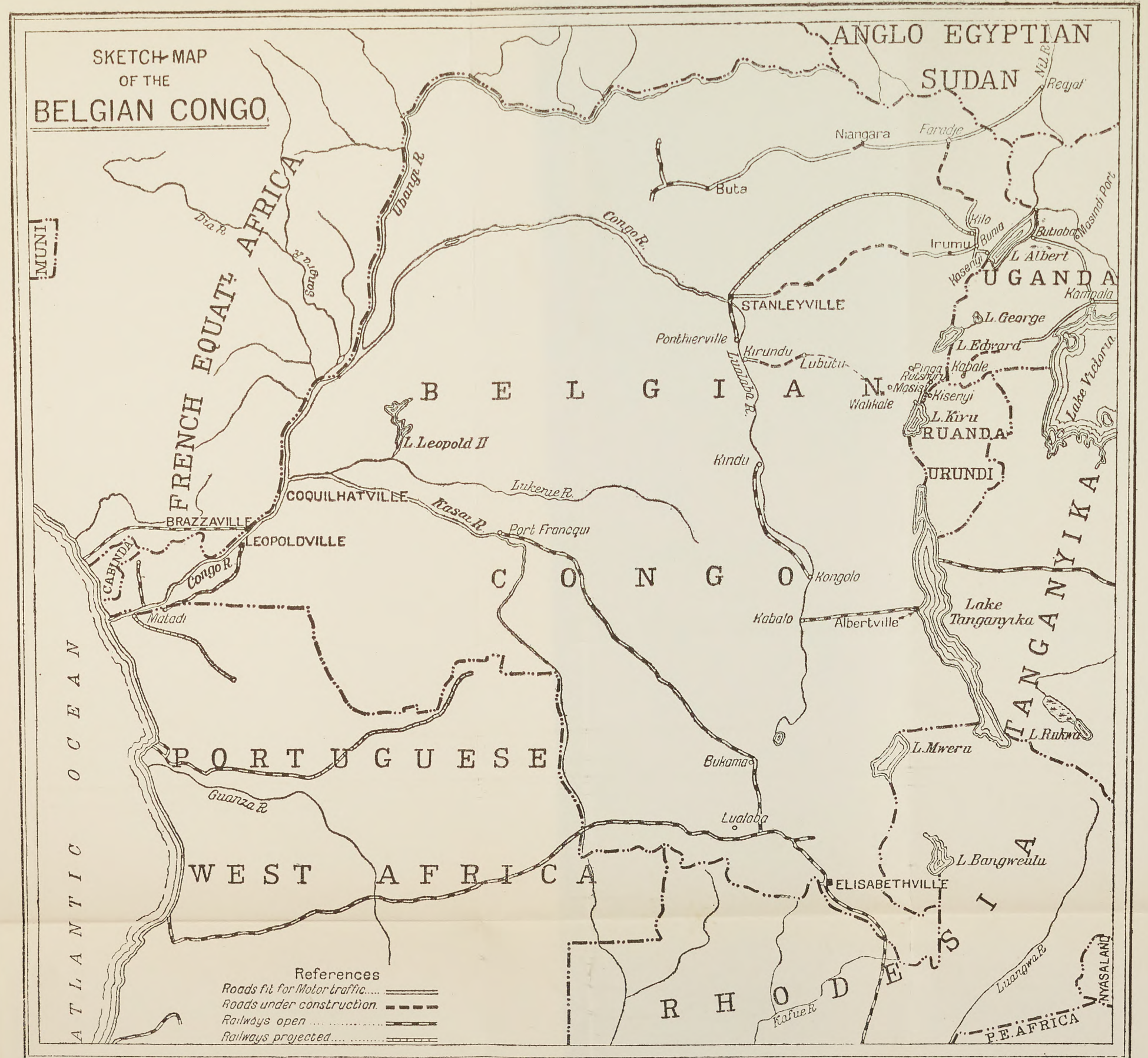
The development of the road and railway systems should have an important effect on the town of Stanleyville, which will, more than ever, become the focal point from which all routes will radiate, and where the trade of the north-east, east, and south-east must of necessity pass. Increased transport facilities promote trade, and the volume of trade passing through Stanleyville should increase in proportion to the facilities provided for transport both by land and water. This increase would, in the natural order of events, result in a larger population, with increased demands for accommodation, and the amenities of life, which, again, will have a repercussion on the local trade of the town.

With increased facilities for travel, the native will naturally become more civilized and require the products of civilization, such as clothes, comforts for his house, etc., which will go far in promoting trade.

Hitherto the communications of the Congo have been considered from a civilian standpoint only. There is also the military aspect of the case to be considered. Since the Arab War of some thirty years previously, there have been nothing more serious than a few native risings. With an increase of civilization brought about by



SKETCH-MAP  
OF THE  
BELGIAN CONGO.







an extension of the railway systems, troubles of this kind should become exceedingly rare. Should, however, operations have to be undertaken on a large scale, movements of troops would, naturally, be greatly facilitated by these routes. The forest country is so dense that, once away from the caravan routes, paths would have to be cut. Owing to the paucity of local supplies, everything required for the troops would have to be carried by porters. Owing to the prevalence of the tsetse fly no pack animal can live.

It is obvious, therefore, that any extension of the main communication must make for peace and prosperity throughout the Belgian Congo.

## HONORARY COLOURS OF THE INDIAN FORCES.

By

CAPTAIN H. BULLOCK, F. R. Hist. S. INDIAN ARMY.

The practice of granting additional or honorary Colours to regiments for distinguished services in India became established during the Mysore and Mahratta Wars, and did not die out until after the Mutiny of the Bengal Army in 1857. Amongst the corps thus honoured were both King's and Company's regiments: the present account deals only with the latter. Particular notice is here given to infantry Colours: The honorary standards awarded to various cavalry units received more detailed attention in a series of articles in the *Cavalry Journal* (October 1929 *et seq.*).

*The Second Mysore War.*

The first instance which I have been able to trace occurred in the Madras Army in 1781, during the second Mysore War. The regiment honoured was the 2nd Carnatic Battalion, after 1824 known as the 20th Madras Native Infantry, which on 10th September 1921 was disbanded as the 80th Carnatic Infantry. It was presented by Sir Eyre Coote the day after the battle of Sholinghur, 27th September 1781, with an honorary Colour bearing the Persian inscription "Hyder Ali Sholinghur", for having distinguished itself at the battle by repulsing Hyder Ali's household cavalry. According to Eyre Coote's despatch dated 6th October 1781 (see Wilson, *History of the Madras Army*, Madras, 1882, II, 49) this was a standard taken from the enemy. The regiment was thanked in General Orders, and Eyre Coote ordered that an extra *jemadar* should be added to the establishment to carry it. On the disbandment of the corps this Colour was presented by Lieut.-Col. H. R. Watson and the officers to the Royal United Service Museum, Whitehall, where it now is. A coloured plate depicting it will be found at page 148 of *The Armies of India*, by Major A. C. Lovett and Major (now Lieutenant General Sir) George F. MacMunn, London, 1911. This Colour is five feet wide on the pike and six-and-a-half feet long, being dark maroon in colour and having a green

border  $4\frac{1}{2}$  inches wide. The streamer is of the same colour and width as the border, and is six feet long.

The next example which I have come across of the grant of honorary Colours or Standard was in January 1785, when the Bengal troops which had been engaged in the Mysore campaign of 1781-4 under the command of Colonel Pearse returned to their own Presidency. On its arrival, "the force was visited at Ghiretti by the Governor-General, and thanked in General Orders; honorary standards were granted to each battalion; *subadars* and *jemadars* received gold and silver medals, and non-commissioned officers similar medals of inferior value."\* None of these corps, of which the survivors were in 1829 permitted to inscribe "Carnatic" upon their Colours, exists to-day; and I have not been able to trace any details of the design of the honorary Colours.

#### *The Third Mysore War.*

After the Mysore War of 1790-2, "Honorary Standards were granted to each battalion, and medals conferred upon the Native portion of the (Bengal) troops who had served in Mysore, and in 1829 the service was further commemorated by the grant of permission to the surviving corps to inscribe "Mysore" on their Colours."† Again none of these regiments survives to-day.

#### *The Fourth Mysore War.*

The three Bengal Volunteer battalions which had served at the siege and capture of Seringapatam (4th May 1799) were in 1800 formed into two regiments of the Line, and numbered the 18th and 19th. "The Commander-in-Chief, Sir Alured Clarke, was pleased to direct, that in order to perpetuate the glory acquired by the Volunteers, each battalion of the new Regiments (the 18th and 19th) should bear in the upper canton of their regimental Colour, an embroidered radiant star, encircled with the words "Bengal Volunteers." ‡ In the supplement to William's book (p. 272), it is also stated that the 19th still wore (in 1817) 'a feather in their caps (turbans) as a badge of their honorable origin as Volunteers'. The 18th

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\* Cardew, *Services of the Bengal Native Army*, Calcutta, 1903, p. 48.

† Cardew, *op. cit.*, p. 63.

‡ Williams, *History of the . . . Bengal Native Infantry*, London, 1897, p. 269.

declined the option of doing so likewise. The later titles and ends of these corps were:—

Title in 1824.	Fate in 1857.
1/18th .. 36th Bengal N. I. ..	Mutined at Jullundur.
2/18th .. 37th Bengal N. I. ..	Mutined at Benares.
1/19th .. 38th Bengal N. I. ..	Mutined at Delhi.
2/19th .. 39th Bengal N. I. ..	Disbanded for disaffection.

*The Mahratta War, 1803-5.*

The Bengal Native troops engaged in the storming of Aligarh (4th September 1803) were, in recognition of their conduct on this occasion, each granted an honorary Colour and an extra *jemadar* to carry it; and were in 1829 authorised to inscribe "Aligarh" on their Colours. These were:—\*

Title in 1824.	Fate in 1857.
1/4th .. 7th Bengal N. I. ..	Mutined at Dinapur.
2/4th .. 23rd Bengal N. I. ..	Mutined at Mhow.
2/17th (2 coys.) 35th Bengal N. I. ..	Disbanded for disaffection.

For the capture of Delhi (11th September 1803), honorary Colours and Standards were granted to the following corps:—†

Title in 1824.	Fate in 1857.
2nd L. Cav. .. ....	Disbanded in 1841 for misconduct in Afghanistan.
3rd L. Cav. .. ....	Mutined at Meerut.
1/2nd .. 1st Bengal N. I. ..	Mutined at Cawnpore.
2/2nd .. 5th Bengal N. I. ..	Mutined at Ambala.
2/4th .. 22nd Bengal N. I. ..	Mutined at Fyzabad.
2/12th .. 23rd Bengal N. I. ..	Mutined at Mhow.
1/14th .. 28th Bengal N. I. ..	Mutined at Shahjahanpur.
1/15th .. 30th Bengal N. I. ..	Mutined at Nasirabad.
2/15th .. 31st Bengal N. I. ..	Loyal—now 1/7th Rajput Regiment.
2/17th(2 coys.) 35th Bengal N. I. ..	Disbanded for disaffection.

\* Thus according to Cardew (*op. cit.*); but according to Williams (*op. cit.*) only the 1/4th received an honorary standard for Aligarh.

† Williams says there were four companies of the 2/17th present.

All the above were in 1829 authorised to bear "Delhi" on their Colours and Standards. The General Order (G. G. O. of 1st October 1803) laid down that "honorary Colours, with a device properly suited to commemorate the reduction of the fortress of Alighur on the 4th, and the victory obtained at Delhi on the 11th September, be presented to" the regiments enumerated above, which leaves it uncertain whether the corps which appear to have been present at both actions—the 2/4th and the two companies of the 2/17th—received two separate honorary Colours, or only one as a combined reward. In the Proceedings of the Governor-General in Council dated 4th September 1806 we read "the Governor-General in Council directs, that the flags of the honorary Colours be of the same colour with the facings of the regiment, and that the devices be executed in gold, silver, and colours mixed. The Governor-General in Council is of opinion that honorary Standards granted upon occasions of the nature of those in question should be made up in the handsomest manner, and with the most durable materials, and that the actual expense should be charged." From the same Proceedings, under date 6th October 1807, we learn that the expenditure of *sonant* rupees 950-3-9 (about £ 75 to £ 100) was sanctioned for the honorary Colours granted to the 15th Bengal N. I. (later the 30th and 31st N. I., from 1824); this would no doubt cover the cost of a Colour for each of the two battalions. Williams (*op. cit.*, p. 329) says that "owing to various causes of delay, the honorary colours granted to corps engaged at the battle of Dehly in 1803 were not formally presented until this year," [1808.]

Some further information has survived about these "Delhi" honorary Colours of the old 15th N. I., since, as has been stated, the 2/15th is the only one of the units to which honorary Colours were then granted which has survived to this day. I quote from *An Historical Account of the Rise and Progress of the Bengal Native Infantry*, by Captain J. Williams, London, 1817, Appendix K.: "The 1st of November 1808, the anniversary of the battle of Lasswarrie, having been appointed for the ceremony of presenting the honorary colours to the 1st and 2nd Battalions of the 15th Regiment of Native Infantry, then stationed at Barrackpore, the regiment was drawn up at an early hour for the reception of Lord Minto, the Governor-General, who did the Corps the honour to present the colours at the head of the grenadier companies previously advanced to receive them."



In presenting the Colours, Lord Minto delivered an address in handsome terms, which was replied to by the officer commanding. The concluding paragraphs of Lord Minto's speech may be quoted :—

“ These Colours....are at once the reward of services already performed, and the memorial of glory already acquired. They display indeed the title and insignia of one great and splendid victory, in the celebration of which, we find ourselves, at this very hour, commemorating another triumph, in which you also were partakers.

It might, indeed, have been difficult to select a day for this ceremony, which would not have recalled some one of the many distinguished actions, which have entitled you to share in the fame of your renowned and lamented commander,\* and which would not have reminded us, that as his revered name is stamped indelibly on your banners, † so you were, indeed, associated with him in all the dangers, exertions and successes of his glorious campaigns.

I beg you, Sir, to express to the 15th Regiment the cordial satisfaction which I experience, in bearing with my own hand, this public testimonial of the high regard and esteem I entertain for this distinguished body of men ; and I request you to convey, above all, the assurances of my firm confidence, that colours obtained at Delhi and presented on the anniversary of *Lasswarrie*, can only acquire new lustre in their hands.”

Williams notes that “ the word *Lake* was embroidered in a wreath, under the other devices, on the honorary Colours.” The present honorary ‘ *Delhi* ’ Colour carried by the 1st Battalion 7th Rajput Regiment (Queen Victoria's Own Light Infantry) bears, within an ‘ *Union* ’ wreath of roses, thistles and shamrocks surmounted by a crown, the inscription ‘ *II Queen's Own Rajput Light Infantry, Delhi September 1803* ’, with two scrolls below and outside the wreath bearing the words ‘ *Lake* ’ and ‘ *Victory*.’ Above the central design is a star, and in three of the four corners are Persian inscriptions.

The honorary Standard granted to the 3rd Bengal Light Cavalry for Delhi also bore the words ‘ *Lake* ’ and ‘ *Victory* ’: I do not know what became of it when the corps mutinied.

The troops, both King's and Company's, which took part in the battle of *Assaye* (23rd September 1803) were by Order of the Governor-General in Council dated 30th October 1803 granted honorary

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\**Lake*: Lord *Lake* caught cold whilst serving as a member of the Court Martial of General *Whitlocke*, and died 29th February 1808.

†The noble lord was quite wrong to refer to Colours as ‘ banners ’.

Colours: with a device properly suited to commemorate that signal and splendid victory.' These Colours are said to have been presented to the regiments concerned by the Commander-in-Chief in Madras, but nevertheless there is considerable doubt whether they were ever received by any of the Indian regiments. These include the 4th Madras Native Cavalry, disbanded in 1891: the 4th Madras Native Infantry, afterwards the 64th Pioners, and now merged in the Corps of Madras Pioneers: the 10th Madras Native Infantry, reconstituted in 1890 as the 1/10th Gurkha Rifles; and the 24th Madras Native Infantry, now the 10/1st Punjab Regiment. According to another version, no steps were taken to carry out at Madras the order relating to the presentation of honorary Colours until October 1811, 'when the Commander-in-Chief moved the Government to adopt the device of the 'Elephant' as borne by His Majesty's regiments which had been present on that occasion. Government approved of the recommendation, and ordered the preparation of the requisite number of badges, silver for the native officers, and copper for the other ranks.' (Wilson, *op. cit.*, III. 395). These badges seem to have been issued in May 1813. Be that as it may, the Elephant was later, and is still, borne on the Colours and appointments of those corps which took part in the battle in the ranks of the Madras Army.

#### THE MAHRATTA WAR, 1817-9.

It is sometimes stated that the 6th Bengal Light Cavalry had an honorary Standard, granted for a gallant charge made by three troops of the regiment at Sitabaldi (27th November 1817). It would appear, however, from the following order that the regiment was granted merely an honorary device to be borne on the existing standards:—

(Government General Orders, 27th February 1819). 'The Governor-General in Council is pleased to permit the 6th Regiment of Bengal Light Cavalry to bear embroidered on the corner of the regimental standards, in English and Persian characters, as an honourable mark of applause from the Supreme Government, the words 'Seetabuldee, 27th November 1817,' in commemoration of the brilliant and decisive charge made on that day, by three troops of the regiment, headed by Captain Fitzgerald, when the British troops were treacherously attacked by the forces of the Rajah of Nagpore.'

The incident is thus described by Cardew (*op. cit.*, p. 131):—

‘ While the Grand Army had been thus occupied in pursuing the bands of Pindaris, affairs had for the moment taken a serious turn for the worse for the British in Nagpur. Here the treachery or weakness of the Raja, Apa Sahib, allowed an attack to be made on the British Residency on the 26th of November by a force of 3,000 Arab mercenaries in his employ. The British troops then at Nagpur consisted of two battalions of Madras sepoy, a few troopers of the Madras Bodyguard, three troops of the 6th Bengal Native Cavalry, and two companies of Bengal sepoy composing the Resident’s Escort. These took up a position on the Sitabaldi hill, standing close to the Residency, and for nearly eighteen hours sustained, with varying fortune, the desperate attacks of the Arabs; at last about noon on the 27th, at a most critical moment, the fortunes of the day were saved by a gallant charge of the cavalry under Captain Fitzgerald.....The casualties of the Bengal cavalry were 23 killed and 25 (including three British officers) wounded..... ’

Although from the foregoing order, and from the accompanying illustration of an existing squadron standard of the 6th Bengal Light Cavalry, it will be clearly seen that only an honorary distinction, and not a separate honorary standard, was awarded to the regiment for this exploit, I have nevertheless seen a circumstantial account of the loss of the “ honorary standard ” to the Sikhs at Chillianwallah in 1849. The *jemadar* who bore it, it is stated, had taken the common course of tying it to his body as a safeguard, but was killed; and the non-commissioned officer who then tried to unfasten it from the *jemadar’s* corpse was attacked by Sikh horsemen who succeeded in carrying it off. The explanation may be that one of the ordinary squadron standards was lost to the enemy on this occasion. The 6th Bengal Light Cavalry (“Native” was changed to “Light” in 1819) mutinied at Jullundur on the evening of 7th June 1857: it is on record that the standards then in its possession were saved. The third squadron standard is now preserved in the officers’ mess of the 18th King Edward’s Own Cavalry, a corps which has no connexion with the former 6th Bengal Light Cavalry: I believe the standard was retrieved from the arsenal at Ferozepore some years ago, having probably been deposited there after the Mutiny.

**THE FIRST AFGHAN WAR.**

Two regiments received honorary Colours during this campaign : the 3rd Infantry, Shah Shuja's Force (now merged in the Corps of Bombay Pioneers), and the 2nd Bengal Native Infantry (Grenadiers), which was disbanded in 1859 after having showed signs of disaffection in 1857.

The 3rd (Light Infantry) Regiment of the Force which was raised to support the ill-fated Shah Shuja-ul-Mulk on the throne of Afghanistan played a distinguished part in the chequered campaign which followed the British incursion into the country. Its chief exploit was the defence of the fort of Kelat-i-Ghilzai from November 1841 until relieved at the end of the following May. A week before the relief the little garrison had defeated with great loss a determined attack by the enemy. For this and other services the battalion was awarded an honorary Colour, and after the war was taken on the strength of the regular Bengal Army as the Regiment of Kelat-i-Ghilzai. A few years later it fought the Mahrattas at Maharajpur, and when the Mutiny came in 1857 it was one of the few Bengal regiments which remained staunch. In 1861 it was denominated the 12th Bengal Native Infantry in the great reorganisation which followed the Mutiny : from 1903 till after the Great War it was known as the 12th Pioneers (Kelat-i-Ghilzai); and to-day, though formerly a Bengal regiment, forms part of the Corps of Bombay Pioneers.

The honorary Colour is of the colours of the old Military Ribbon of India, blue, yellow and red, in equal horizontal stripes, the blue uppermost; and bears the title of the regiment within an 'Union' wreath of roses, thistles and shamrocks. The battle-honours are set forth in three scripts, English, Persian and Hindi; and below is the motto 'Invicta' over a mural crown, the latter only having been confirmed to the regiment in 1891.

The other honorary Colour awarded for this campaign had its origin in no such gallant service in the field: it was in fact merely a piece of 'window-dressing' on the part of the Governor-General, Lord Ellenborough. Two separate acts of his excited much comment and even controversy at the time, one of which received most notice in England and the other in India; and both are connected with the flag, now forgotten, of which the story follows here.

First of these acts of Ellenborough's was the removal of the Gates of the Temple of Somnath, which, (it was alleged) were those

which the conqueror Mahmud of Ghazni had despoiled India of long before, and which had been erected at Ghazni before his tomb. Ellenborough determined that, as a symbol both of victorious British arms and of restitution to India of what was hers, these gates should be removed to India by General Pollock's force when it withdrew from Afghanistan to the Punjab in the autumn of 1842. Second of Ellenborough's acts was the shower of compliments which he poured upon that force when it arrived, by way of making the best of a very bad job indeed. A mere list of these honours would fill more than a page here: the best justification that can be found for them is the necessity—it was no less than a necessity, as events proved—for showing a bold front to the turbulent Sikh Raj which was watching the return of a huge British force from a campaign in the course of which disaster had followed disaster. Beset by a jungle of difficulties Ellenborough evolved, amongst other cerebrations, the notion of an honorary Colour.

This Colour was awarded to the detachment of the 2nd Bengal Native Infantry (Grenadiers), which provided the escort for the gates of Somnath, as will be seen from the following "Notification by the Right Honourable the Governor-General of India," dated Camp Ferozepore, the 23rd December 1842:—

"This day Major-General Nott passed the Sutlej at the head of his whole force. The Major-General was received at the foot of the bridge by the Governor-General and His Excellency the Commander-in-Chief, attended by their respective staffs and escorts. The Governor-General was accompanied by Jye Singh Rao Ghatkee, by the Rajah of Jheend, and other Chiefs of Sirhind. The troops and followers of the Rajah of Jheend, and of other Chiefs, were formed in two lines, beyond the escorts of the Governor-General and Commander-in-Chief. The gates of the Temple of Somnath passed the bridge under the escort of infantry being composed of volunteers from the 2nd regiment of grenadiers. . . . The Governor-General delivered to the senior Jemadar of the escort a flag of the three colours of the military ribbon of India, having inscribed thereon "Ghuznee," in English, Persian, and Hindee, and informed Captain MacLean, Commandant of the escort, that on their return to their regiment, the flag was to be retained as a third Colour, in commemoration of their distinguished services. . . ."

The sequel is too long a story to tell here in more than the briefest of outline. The gates had a triumphal progress across Northern India in their reputed character of the historic sandalwood portals of the Somnath Temple until, on arrival at Agra, they were discovered to be made of common painted deal. They were I believe hurriedly dumped in the arsenal at that station, probably in the hope that they would soon be forgotten, for by this time the ethics of Ellenborough's removal of them were being hotly debated in the English Parliament on various grounds. What happened to them I have never discovered: they evidently found the oblivion which all concerned must by then have wished them to achieve: after the last reverberation of political controversy died away "the rest is silence." Nor do I know what happened to the honorary Colour of the Second Grenadiers, though I have heard that the regiment was still carrying it at the time of the Mutiny. Its chief interest lies in its design, which we may assume to have been much the same as that of the Regiment of Kelati-Ghilzai's Colour; and which, in its basis of the three colours of the military ribbon of India, was to be followed by the next in point of date of the honorary Colours which still exist—the Meanee standards of the Scinde Horse. These three colours, blue, yellow and red, are no longer generally recognised as emblems of Indian military achievement, though in former days they were well to the fore, in the shape of medal ribbons as well as of honorary Colours. Even the bridge over which the Army passed on its way into Ferozepore from Kabul, on the occasion already noted, was festooned with bunting of these three colours.

*The Conquest of Sind.*

Sir Charles Napier's astonishing campaign provides two examples of the grant of honorary Colours. In respect of one of them the story is brief. The regiment honoured was the 9th Bengal Light Cavalry, which was awarded an honorary Standard, with an extra Indian Officer to carry it, for its services in this campaign. It had taken part, with the Scinde Horse, in the brilliant charge at Meanee (17th February 1843) and had helped to turn the enemy's flanks at Hyderabad (24th March). No details of the standard have survived: in 1857 half the regiment mutinied and the other half was disarmed.

The second regiment honoured for its share in the conquest of Sind was the Scinde Irregular Horse, which at Meanee captured a

flag described as 'the enemy's principal standard' dark-green in colour, 'Nusseer Khan's own standard, with his name on it. On the top is a silver hand, with signet ring on one finger.' By order of the Government of India, this flag was formally presented to the regiment by Sir Charles Napier. It is still carried on ceremonial parades, and now bears various battle-honours and inscriptions which were evidently added to it many years ago.

For the same campaign the regiment was also granted honorary squadron standards of the colours of the military ribbon of India; and four of these, indetical in design, are now in the possession of the Scinde Horse. These are recorded to have been manufactured at the magazine at Agra about May 1845. When the Scinde Irregular Horse was expanded into two separate regiments, the 2nd S. I. H. was also given a set of four honorary squadron standards, which are still in existence. They are swallow-tailed and dark-green in colour.

#### *The Second Sikh War.*

The only honorary standard given for this campaign was that authorised for the 2nd Bengal Light Cavalry. This regiment, formerly the 11th of the Line, had taken the place and number of the old 2nd Bengal Light Cavalry when the latter was disbanded in 1841 for having disgraced itself at the action of Parwandara in the First Afghan War. The new 2nd Bengal Light Cavalry carried (I do not know by what authority) as an honorary standard an enemy flag taken at Multan by Captain Vincent. I have not been able to trace any details of its capture, which no doubt occurred either on the morning of 12th September 1848, when one squadron from each of the three regiments of cavalry in the attacking force cleared the ground in front of the trenches preparatory to the infantry assault; or, more probably, during the second siege at the action of Surajkhund on 7th November 1848.

The 2nd Bengal Light Cavalry mutinied at Cawnpore in 1857, and I do not know what became of this flag.

#### *Persian War, 1856-57.*

At the battle of Khushab (7th February 1857) the Poona Irregular Horse captured a Colour of the 1st Khushgai Regiment of Kars, surmounted by a silver hand bearing a date equivalent to A. D. 1066 and an inscription translated as "The Hand of God is above all

things." By General Orders of 18th May 1859 the regiment was permitted to bear this hand on its standard in recognition of its services on that occasion, and it is still so borne by the present Poona Horse (17th Queen Victoria's Own Cavalry). The silver hand which surmounts the lance must surely be the oldest military emblem now in use in any army.

*Delhi, 1857.*

For its 'recent gallant services' at the siege and storm of Delhi in 1857, the Sirmoor Battalion—now the 1st Battalion 2nd King Edward's Own Gurkha Rifles—was in August 1857 made a rifle regiment with the unique privilege of continuing to carry colours as such. It was also granted an additional honorary Colour which bore the word "Delhi" in Persian, Hindi, and English characters, and an extra *jemadar* was allowed above the ordinary establishment to carry it. In 1863 the corps ceased to carry colours and Her Majesty Queen Victoria presented to the regiment a silver Truncheon to take the place of the honorary Colour. This Truncheon is paid the honours due to a King's Colour and is escorted on parade by the usual colour party. The fate of the superseded Colour is a mystery and nothing seems to be known of it.

*Kirwi, 1858.*

On 10th June 1858 General Whitlock's force operating against mutineers and rebels in Oudh took possession of the marvellous "Kirwi Booty," amounting to £ 400,000 in cash and jewels and bullion beyond price. The Chaplain to the force, who may be considered a reliable witness, says :—

'The prize agents packed up the ingots of gold, the wagon loads of silver, the large chests full of jewels, diamonds as big as gooseberries and emeralds of plum size. Mirrors and golden chairs, Kashmere shawls, ruby-hilted swords and varieties of that nature were rubbish, bundles to be locked up in lumber-rooms and carried away when time and spare carts were available.'

Controversy regarding the distribution of the prize-money accruing from this treasure continued for more than twenty years afterwards, but this is not the place to discuss its rights and wrongs. There is a curious story regarding the 3rd Madras Light Cavalry (now the 7th Light Cavalry) and the Booty, however. For services, (of an



unspecified nature), in connexion with it—possibly for escorting or safeguarding it—the regiment is said to have been given by General Whitlock an honorary standard known as the ‘Whitlock Colour’; but some years afterwards this was ordered to be withdrawn, there being no authority for its use. Investigation does not tend to bear out the truth of this story, which first gained currency during the nineties, I believe. The 3rd Madras Light Cavalry was not at Kirwi, though another of the Madras Cavalry regiments may have been. With this perhaps apochryphal instance the long story of Indian honorary Colours closes, for since the responsibility for India and its armies was assumed by the Crown in 1858 none have been awarded.

## TACTICAL MOBILITY—PROBLEMS OF TRAINING.

By

MAJOR B. C. DENING, M. C., R. E., P. S. C.

### (a) *The Influence of Armoured Fighting Vehicles.*

The years since the Great War have been characterised by a considerable growth in the doctrine of mechanisation. Particularly in our Army at home and in the American and French Armies, the presence of armoured fighting vehicles (A. F. Vs.) in some form in the forward fighting areas has come to be assumed to a large extent when considering future warfare. One effect of this has been that problems of tactical mobility have tended very largely to revolve around the performances of these A. F. Vs. Naturally enough, A. F. Vs., exerting a great influence upon the local battle, have demanded the chief consideration of commanders, particularly junior commanders. It is for investigation, however, whether the assumed presence of A. F. Vs. has not lead to inadequate attention being paid to other aids to tactical mobility.

Secondly, while A. F. Vs. have been passing through their necessarily prolonged period of experiment and development, which has already lasted ten years, it has not been possible for the other co-operating arms to be certain either of the type or of the capabilities of the A. F. Vs. they will actually have to work with in war. Questions of the fire power, speed, vulnerability, and cross-country performance of A. F. Vs. materially affect the tactics of co-operating arms. In consequence other arms have had either to stand by waiting for some finality in design to be reached, or else have had to change their tactics to keep pace with changes in A. F. V. performance. Both courses are unsatisfactory. An army to be well trained, and to possess a well trained reserve, needs continuity in training methods, spread over a considerable number of years.

### (b) *The Present State of tactical mobility.*

To appreciate the present position of tactical mobility, it is necessary to look back at the general experience of the last war. In France the forces on both sides started with strategical mobility and though not realised at the time, with negligible tactical mobility. The first

contact very soon demonstrated the degree of tactical mobility attainable. For four years both sides endeavoured to restore tactical mobility by various means, gas, heavy shelling, or tanks; meanwhile strategical power of movement was destroyed by the unwieldiness of the armies with their vast size and their heavy armament and stores. Twice, on 21st March 1918, between Arras and St. Quentin, and on 27th May 1918 on the Chemin des Dames, the German Army achieved considerable tactical successes, moving forward in one case forty miles. But their army by that time was strategically so immobile that the tactical mobility acquired (in any case for only a short time) could not be fully developed. In that state the Great War ended in the principal theatre, with tactical and strategical mobility practically non-existent.

In Palestine and Mesopotamia conditions were somewhat different. Yet here again, given anything approaching equality in the strength of opposing forces, to obtain tactical mobility in the face of the enemy proved very difficult. Owing to smaller forces being employed, once fronts were broken, however, strategical mobility was achieved and maintained by the outflanking operations, which the extent of the theatre of war permitted. Even here at the end there was little tactical movement possible on the battlefield.

Since the war, the motorisation of the world has proceeded apace. There are indications that should tactical movement become feasible, strategical movement could be maintained by the use of the large available resources of M. T. and by the employment of airforces and fast A. F. Vs. But the very doubtful question is whether tactical movement can be enforced. Undoubtedly hopes are pinned to the development of A. F. Vs. as the main method of restoring tactical mobility.

Few will dispute that, given the suitable conditions, A. F. Vs. can bring about considerable movement on the battlefield. The problem lies in ensuring that suitable conditions will exist in the area in which the Army is forced to fight. Certain types of terrain completely rule out the use of A. F. Vs. Difficulties of cost, transportation, and maintenance, or local climatic conditions, such as extreme heat or heavy rains, may hinder, if not completely, debar the employment of such vehicles. It is clear that in many parts of the Empire to-day we cannot count on the possibility of A. F. Vs. co-operating, just as in others it is evident that they will have full scope.

The situation where A. F. Vs. are out of the picture is that the extreme accuracy and rapidity of fire of the modern small arms weapons render any movement visible to and within effective range of the enemy too expensive to be practicable, when that enemy is free to use his small arms weapons.

*(c) Some Desiderata in Training.*

In what direction then do we wish to direct our efforts in training? We have seen that A. F. Vs. in their present state, by the uncertainty both of their presence and of their capabilities, are not to be relied upon universally to restore tactical mobility. Even when perfected, it may be that their best use will be found to entail employment far away from the main infantry body or with specially transported infantry of their own. The bulk of the other arms may still find themselves left to their own resources in forcing their way forward.

According to our experiences up to the end of the Great War, there are various methods of overcoming the power of the defence, provided it has not had opportunity to protect itself by siege warfare methods, *e.g.*, by the erection of wide obstacles and the construction of elaborate trench systems.

These methods are :—

- (i) By the use of ground and cover.
- (ii) By night operations.
- (iii) By the use of smoke.
- (iv) By the timely employment of covering fire of guns, automatics and rifles.

By the astute use of ground and cover sometimes localities can be reached from which assault is practicable or fire can be delivered which renders the enemy position untenable.

Under cover of darkness or smoke, areas can be crossed which are completely barred when the enemy has clear vision. Covering fire put down at the correct time and place can deny the enemy the power to use his weapons.

But it is remarkable how far success by any of these methods is dependent upon training. Only training will teach troops to use ground and cover to the fullest advantage. Night operations demand also the highest state of training in those participating. Smoke, unless employed by those well accustomed to its vagaries, can prove

a hindrance rather than a help, but applied with knowledge it may prove invaluable. Similarly, covering fire, whether of guns or small arms weapons, depends entirely for its effect upon the efficiency of the units delivering it. The slightest inaccuracy in the location of the target, the adjustment of ranges, the control of fire, etc., will reduce the value of covering fire to a negligible quantity.

In training then, to overcome a dependence upon A. F. Vs. and to restore some degree of tactical mobility, at least in open warfare in most sorts of terrain, it seems evident that troops should be exercised continuously and intensively in use of ground, in night work, in working with smoke and in the production of accurate covering fire of all natures.

*(d) Some Suggestions in Training.*

*(i) The use of Ground and Cover.*

One of the most difficult questions for even highly trained scouts and experts to answer is that of forecasting, in the use of a piece of ground, how much of it will be visible from the enemy on a given spot and how much will not. The success of an attack will often depend upon a correct analysis of this problem by junior commanders. The solution is obtainable only by practice. It is suggested that excellent value will be obtained, particularly by the junior leaders, if whenever possible, attacks in training be carried out twice—once with these leaders leading their units and making the best use they can of ground and cover, and once with units led by their seconds in command or oldest soldiers, while the junior leaders are placed in the supposed position of the enemy. Such a plan not only impresses errors very definitely upon the junior leaders, but also practises the rank and file twice over and gives prospective leaders a chance of command.

*(ii) Night Operations.*

Apart from careful preparation and organisation, which are primarily matters for the staffs of formations, success in night operations depends again very largely upon the junior leaders: this time in their ability to find their way about at night and to maintain direction in the dark. Even by daylight, it is difficult to ensure that units will maintain direction; by night, it is far harder. Before anything is attempted in the nature of even company movements

by night, it is necessary to practise junior leaders thoroughly. A good method is to instruct them to proceed by night, with perhaps a section of men, from locality A to locality B, pointed out to them in daytime on the ground. The problem can be made progressively more difficult. This system also teaches the rank and file how to move at night, and to move silently.

*(iii) The Use of Smoke.*

Smoke unfortunately has its limitations. Used recklessly it may do more harm on the battlefield by hiding vision to certain sections of the troops than good in protecting others. Further, under certain climatic conditions it may play false, either blowing in the wrong direction, dissipating unduly, or, in high temperatures, rising abruptly. Nevertheless smoke, properly used, can be of such remarkable assistance that it should be persevered with. Most of the disadvantages of smoke referred to above apply mainly where smoke is employed in large quantities, where too great store is being set by it, or where its use has been planned too long a time ahead. The remedy, it is suggested, lies in the fuller training of unit commanders in the use of smoke, in authorizing them to use it in small quantities after due consultation with flank and support commanders, and in practising the putting down of smoke in small quantities at short notice on a given target. Admittedly there is a risk of smoke used by one unit hindering the next unit. But risks must be taken and this risk is probably of less consequence than the failure of the unit attack. One would like to see the means of developing smoke in the hands not only of the artillery field unit, but also those of the infantry and the light artillery unit.

*(iv) Covering Fire.*

The principal difficulty in arranging covering fire of any sort lies in pin-pointing the target at which it is to be directed. In stationary operations we can rely upon aeroplane photography, reconnaissance, and other sources of information such as prisoner's statements, captured maps, etc., but in mobile operations no such aids are likely to be available. Each unit is dependent upon its own powers of reconnaissance and observation. These are governed by, firstly, practice, and secondly, instruments. Every fighting man is trained in picking up targets. Every fire unit should go further and possess an expert with glasses,

skilled in the art of detecting enemy movement and works. Larger units require an organization for keeping a section of front under continuous observation. Obviously a unit which can first establish the location of its enemy and then place its covering fire upon him, will stand a greater chance of moving in safety. In many cases the enemy will remain at least partially undetected until the attack develops. The efficacy of the covering fire will then depend again upon the observers who pick up the enemy at the first opportunity, and upon the arrangements for controlling the covering fire, by which a reserve of fire is always available to switch on to targets as they appear.

*(e) Conclusion.*

It is apparent that the problem of maintaining a degree of tactical mobility is a very real one, particularly when it is realised that the assistance of A. F. Vs. and heavy artillery support are by no means universally available. It would seem that at least a partial answer can be found in systematic training.

## “AND THEN THERE WERE SEVEN.”

BY ‘FAILED PROMOTION.’

### 1. *The Lost Principle.*

Many a young British officer, just emerged from a World conflict, which, he was frequently assured, had interfered sadly with his training, must have heaved a sigh of relief when he opened Volume II of the first post-war Field Service Regulations. There, staring him in the face, on its second page was the bold announcement, “The principles of war are as follows.” At last those elusive principles, that he had been vainly trying to grasp for so long, were confined, without hope of evading him, in fourteen words of emphatic black type. No longer was he told officially that they were neither numerous nor abstruse—and then left to find them out for himself. Never again would a somewhat embarrassed senior put him off with, “Well, it’s devilish hard to put ’em into words, but—er—you’ll find ’em out as you go along, don’t you know. Experience is the only thing, my boy, experience!” There they were, all eight of them, catalogued and numbered, for all the world as incontrovertible and prosaic as a quartermaster’s indent. No vagueness about this; none of that nervous hedging, so characteristic of the official manual. A complete change from the usual, “In these circumstances a bold advance will often ensure success; on the other hand, a skilfully conducted withdrawal will frequently prove the best course, while the advantages of a well executed crab-wise movement to a flank must never be overlooked.” Here, at last, was no hesitation, no room for doubt. “The principles of war are as follows”—and that was that.

For six years the Young Officer, struggling through the pitfalls and snares of the innumerable examinations that continuously beset his path, hitched his waggon to these principles as his guiding stars. In his unstable universe of changing stations, disbanding units, re-organizations and axings, they at least were serenely constant. Judge then his consternation when he saw in the latest edition of Field Service Regulations that, no longer were there eight principles of war, but only seven. The very first of his cherished principles, *Maintenance of the Objective*, had been swept away by the stroke of some omnipotent, but sacreligious, War Office blue pencil. His world rocked. The foundations of his belief crumbled beneath him.



If Maintenance of the Objective was a principle of war six years ago, why wasn't it now? Or had it never been a principle at all? Could one even be sure that all the remaining seven were really principles? He felt himself on the verge of panic. But, with an effort, remembering that a British officer must carry on, even if he has had one of his principles shot away, he seized the book firmly between the thumb and forefinger of the right hand, and tried hard to think.

## 2. *Maintenance of the Objective.*

First of all, what is a principle of war, anyway? The dictionary defines a principle as “a fundamental truth, or general law.” A principle of war, then, should be more than merely something which confers an advantage on its possessor in war. Should it not, rather, be a fundamental law, the breaking of which renders victory almost impossible, except as an accident? Accepting this as a working definition, does the unfortunate “Maintenance of the Objective” deserve its sentence of banishment?

At first sight it seems a very safe principle to accept, for it enforces that concentration of purpose and tenacity without which nothing serious can be achieved. But it fails badly in one essential. Maintenance of the Objective is a very good principle provided the objective selected is the right one—a decisive one. If it isn't, the sooner one ceases to maintain it, the better. Thus, while the mere maintenance of an objective is no true principle, it is a fundamental law of war that unless the objective aimed at is decisive, and unless it is maintained until it is achieved, victory is impossible. What constitutes a decisive objective is another matter, and it was, perhaps, a little rash of the old Regulations to lay down dogmatically that, “The ultimate military aim in war is the destruction of the enemy's main forces on the battle field.” It may be, and very often is, but it will not necessarily always be so. Had the German submarine campaign been a little more intense, the Allies would have been beaten, without their main forces, naval or military, having received a defeat, let alone been destroyed. The Southern Irish never defeated the British forces, yet they imposed their will on the stronger Power. The effect of the sudden annihilation of vital centres in a hostile country from the air, might, in certain circumstances, be as effective as the destruction of an army. The new Regulations are on safer ground when they describe the military aim as being, “to break down

the resistance of the enemy's armed forces, in furtherance of the approved plan of campaign." How this is to be done, whether by direct attack on these forces, or by indirect attack on the government or people who maintain them is best left to be decided when the need arises.

Still, for all that, in every military operation a decisive objective will have to be selected, and once selected, maintained. No other principle of war embodies the determination and tenacity essential for victory. Least of all should this principle be omitted from a British list of the principles of war. Time and again has a dogged adherence to it enabled us finally to overcome the tragic difficulties we have brought on ourselves by the neglect of every other principle.

There can be no victory without the selection and maintenance of a decisive objective. The old principle should be rescued from the wilderness of Section 7 (2) into which it has been banished, and restored to its proper position and dignity as a principle of war, under the style of "Maintenance of a Decisive Objective."

### 3. *The Seven Survivors.*

But the faith of the Young Officer in his once infallible principles has been rudely shaken. The seeds of doubt have been sown in his once trustful mind, and he cannot be prevented from examining with a somewhat questioning eye the seven surviving principles, so confidently drawn up in column for his inspection.

The first thing he notices is that they have been fallen in a different order; they have been resized. He wonders what weighty notes were borne by stalwart messengers along the echoing corridors of the War Office, before it was decided that "Offensive Action" should move down from second place to fifth. He hopes that it lived up to its name, and did not go down without a vigorous struggle. "Offensive Action" is a very precious principle to a small army with big responsibilities. But such speculations are disarmed by the characteristically cautious sentence. These principles "can be defined, but their relative importance and the method of their application are constantly varying." The Young Officer sighs, and scratches his head. It's all very true, no doubt, but a bit difficult. Then remembering, with a start, that to scratch one's head in the middle of an inspection is an unsoldierly act, he pulls himself together and runs an eye over the first principle—"Concentration."

"Concentration" stands the inspection very well. To obtain victory, that is to impose our will on the enemy, superior force of some kind, numerical, mechanical, or moral, must be concentrated and used against the decisive objective at the right time. This principle appears unimpeachably correct to the last button, and the Young Officer passes on.

Next in the ranks stands "Economy of Force" who bears a striking resemblance to his neighbour, "Concentration." In fact, the more he looks, the more the Young Officer begins to believe that here are not two principles, but a duplication of the same principle.

"Economy of Force" in the abstract, that is the use of the minimum force to achieve one's object, is not, itself, a principle of war. To use a steam hammer to crush a walnut is not economy of force, but it is a very effective way of crushing the walnut all the same. If you really want to crush a walnut and have a steam hammer handy to do it with, why not use it and make quite sure? The passion for literal economy of force is especially dear to us as a nation, and has led us, only too often, through preliminary disaster to the final expenditure of disproportionate strength. We attempt to conquer Mesopotamia with one ill-found division, and end up by having a huge force contained by one-fifth its number of Turks. Much better let this "Economy of Force" go hang from the first, and make sure, or not take on the job at all. So much for one conception of economy of force; it is a fallacy likely to cost dear.

"To economize strength must be the aim of every commander," says Field Service Regulations, but economy of itself is as poor a principle in war as it is in business. The Young Officer, having studied the Russo-Japanese War for one of the several examinations he has failed in, remembers the Russian generals who economized their forces so thoroughly that they accepted defeat with their large reserves still intact. A year ago he would never have dared to question a principle thus laid down in black and white, but now he is inclined to think that, "To assemble and use the utmost possible force to deliver a crushing blow at the earliest opportunity must be the constant aim of every commander." Economy is entirely subsidiary, and of use only in so far as it helps towards this. No exception can be taken to "the use of the smallest forces for purposes of security, of diverting the enemy's attention, or of containing superior enemy strength," but this is not a principle in itself. It is only an obvious method of helping towards concentration;

Then too, must a commander continually aim at compelling a dissipation of the enemy's force? The Crusaders, sweating across Palestine would not have agreed: nor would Wellesley, cursing his clumsy bullock train, as he toiled after the elusive Mahrattas: nor yet, in their turn, would the French generals in the Peninsula, who asked nothing better than that the Spanish should abandon their guerrilla tactics and come out into the open as an army to give battle. In most types of small wars whether in Africa, India or Ireland, the commander's greatest difficulty is usually to make the enemy concentrate and give him something to hit.

After a very careful scrutiny, the Young Officer decides that "Economy of Force" is not a separate principle at all, but is only Concentration masquerading under another name. He, therefore, orders "Economy of Force" to fall out of the ranks.

The next four, "Surprise," "Mobility," "Offensive Action" and "Co-operation," are principles after the Young Officer's own heart. He didn't play three-quarter for his school for nothing, and he knows that success in war, as in sport, is impossible without them. He looks them over with an approving eye and passes on.

"Security," standing stolidly at the end of the line, seems rather a dull fellow in spite of a family resemblance to the more dashing "Mobility." These two should be considered together. The whole object of security is that a force should retain its freedom of action, that is its ability to move in any direction, to keep its mobility. The old Regulations said, "A force adequately protected retains its liberty of action;" the new ones, wisely, do not repeat this. From 1915 to 1918 the German and Allied armies confronted one another on the Western Front. Each had its rear and flanks almost completely secure, and its front so heavily fortified, and held in such depth, that neither could pierce the other's defences. Never were forces more "adequately protected," and never, in the whole of history, have they retained less liberty of action. Mere security is not so much a principle as a means to an end—movement. Real security is exemplified in the armour of the tank, the secrecy of the submarine, the speed of the aeroplane, because each of these gives freedom of movement in the face of the enemy. This is the real security, the power to move rapidly in any direction in spite of the enemy. Instead of two distinct principles, there should be only one—"Freedom of Movement."

4. *Absentees.*

The Young Officer, having dismissed two out of the seven principles originally drawn up for his inspection begins to wonder whether some real principles may not be absent from parade. He calls to mind an occasion, some years ago, when he formed part of a force moving to cut off a retreating enemy. This force observed every one of the principles now before him. It was in ample strength for its task, its action was undoubtedly a surprise to the enemy, it was mobile, its rôle was thoroughly offensive, and it was acting in co-operation with other forces. Yet it failed completely, because for two consecutive days it received neither food for men nor fodder for animals. Its supply arrangements had broken down. Obviously some pretty useful principle had been violated. Three-quarters of an officer's time is occupied with questions of supply and maintenance, and innumerable campaigns have been lost by failure in these vital respects, yet not one of the principles on parade as much as mentions them. A force may conform to every one of these principles and yet fail, because it cannot be maintained in the field long enough or at a high enough pitch of efficiency to ensure decisive victory. There have been instances of this in history from the earliest times, when successful armies melted away on the threshold of final victory, because the soldiers wanted to return to their homes with booty or to look after their crops, down to the third Afghan War, when a victorious British army had to abandon all offensive action because this principle of supply had been neglected. Alva recognised this principle at work when he relied on lack of money compelling the dispersion of the forces of the States-General that opposed him.

It was the violation of this principle, more than any other, which brought disaster on Germany in the Great War. In their initial plans, the Germans recognised that their resources were equal to a war on two fronts for a short time only. Yet when they found an early victory was impossible, they did not use their favourable position to make an advantageous peace, but carried on until they could no longer supply or maintain either their armies or civil population.

Ability to supply and maintain all necessary forces until final victory is achieved is a fundamental necessity in war. "Supply" is, therefore, called up to take his place in the ranks of the principles of war.

Still even after this, the muster does not seem complete. The Young Officer racks his brain, which, if the truth must be told, is becoming a little exhausted by so much unaccustomed exercise, to discover the absentee. What has he so often been told he must do to gain a true realization of the principles of war? Why, of course, to read and re-read the campaigns of the Great Captains. But, as far as he can judge, it is hard to evolve any definite principles at all from their methods. Napoleon concentrated his army before a battle, Alexander always seemed to divide his up into detachments; the Romans conquered their world with the disciplined solidity of the slow moving legion, the Mongols conducted the greatest and most successful war in history mainly with their loosely organized light horse. It is all very difficult. The only lesson that he can deduce is that to be a Great Captain you have to hit the other fellow, hard, on the point of the jaw, when he isn't looking. But each of them went about it in his own way. There was no uniformity of method, and they didn't seem to bother much about principles until they came to write their memoirs. But stay, there was one thing they all, without exception, had in common—they never made a plan or moved a man, without, by every possible means, collecting the fullest and most accurate information obtainable.

The Young Officer begins to realize that, without information of the enemy, of our own forces, of the country, of the climate, the political situation, and of a hundred other things, a reasonable plan of campaign cannot be made. Even the objective, let alone the method by which to attain it, cannot be selected. The more academically a plan adheres to the already accepted principles, the further will it miscarry, if based on faulty or insufficient information. Without good information everything else is vain. To obtain the fullest possible information for one's self, while denying it to the enemy and deceiving him with false, is the first principle of war.

"Information" is called up, and falls in at the head of the column.

### *5. The Principles of War.*

With some satisfaction the Young Officer regards the eight principles standing firmly before him. He thinks they look a more useful squad for active service than the one he had originally started

to inspect. He wonders, a little wistfully, whether any of his seniors would agree with him, or whether, as is his unfortunate habit, he has got the answer wrong again. He hesitates to be as dogmatic as Field Service Regulations, and to proclaim, "The principles of war are as follows," but he does timidly whisper to his approaching senior officer, "I hope you don't mind, Sir, but I've been thinking"—the senior officer starts slightly—"and I wonder whether the principles of war may not be —

- (i) Information.
  - (ii) Maintenance of a Decisive Objective.
  - (iii) Freedom of Movement.
  - (iv) Concentration of Force.
  - (v) Offensive Action.
  - (vi) Surprise.
  - (vii) Co-operation.
  - (viii) Supply "
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**WELLESLEY'S MAHRATTA CAMPAIGN OF 1803, IN THE  
NEIGHBOURHOOD OF AHMEDNAGAR AND AURANGABAD—  
A LECTURE.**

BY

MAJOR H. H. RICH, 6TH RAJPUTANA RIFLES.

*Events leading up to the outbreak of hostilities.*

In Europe the Treaty of Amiens (1802) had just been signed and had produced, at least, a truce between the French Republic and the British. This, while it prevented open hostilities, did not prevent Napoleon from intriguing with many of the French adventurers in the service of the various Indian Chiefs, with a view to overthrowing British Power.

In India, after the final overthrow of Tippoo and his death at the capture of Seringapatam in 1802, the Mahrattas came to the conclusion that they were bound to clash with the British in the struggle for supremacy. After the fall of the Sultan of Mysore, the Chiefs of the Mahratta Confederacy refused to take their share in the partition of the former State, and thereafter showed jealousy and unfriendliness to their late allies the British. In this they were aided and abetted by a French officer, Perron by name, in Scindia's service. This man had visions of independent sovereignty and was known to have been in correspondence with Napoleon with a view to obtaining support.

The Mahratta Confederacy represented what was left of the Empire which Shivajee had won from Aurangzeb in 1680, and was ruled by five powerful and independent princes. The nominal suzerain was the Peshwa who was sovereign of the hill country of the western ghats with his capital at Poona. Scindia of Gwalior, Holkar of Indore, the Gaekwar of Baroda and Bhonsla of Nagpur made up with the Peshwa this great confederacy. No member, not even the suzerain, had the power to enter upon engagements affecting the nation as a whole without the concurrence of the remainder. Chronic jealousy among the Chiefs rendered a general treaty impossible, and the internal disputes grew to such a pitch that Holkar invaded Poona, defeated Scindia, who was then supporting the Peshwa, and forced the head of the Confederacy to fly into the arms of the British at Bassein. Hostilities between Scindia and Holkar pointed to a dissolution of the Confederacy, and, on this account, the Peshwa signed a defensive-offensive alliance with the British under



the terms of which he was re-instated at Poona by the aid of their army. One of the conditions was the maintenance of 6,000 of the Company's troops in his capital. Almost the first act of the Peshwa was to quarrel with his ally Scindia, who, as a result, gradually lost his friendliness for the British and became their bitter enemy. Negotiations, however, continued for several months, and it was not until the concentration of the Gwalior army with that of Bhonsla was completed near Ajanta, that Scindia finally dismissed the British envoy from his camp.

*Dispositions on the outbreak of war.*

The dispositions of the British forces on the outbreak of war were as follows:—

Under General Lake at Cawnpore—

Three regiments of British Cavalry.

One battalion of British Infantry.

Native troops.

Making a total of 10,500.

Under General Wellesley—

At Walki—

Europeans	..	..	..	1,600
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Indians	..	..	..	9,500
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Mysore and Mahratta horse	..			5,000
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At Aurangabad—

Europeans	..	..	..	900
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Indians	..	..	..	8,000
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Making a total of 25,000

Under General Stuart (As a reserve for Wellesley)—

At Modgul, south of the Kistna River	..			9,000
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The Mahratta forces were disposed as follows—

Under Scindia and Bhonsla—

At Ajanta—

Cavalry	..	..	..	30,000
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Infantry	..	..	..	18,500
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Rocket and matchlock men	..			1,500
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Guns	..	..	..	190
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Under Perron—

50 miles north of Agra—

Cavalry	..	..	..	20,000
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Infantry	..	..	..	15,000
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Large train of Artillery.	..			
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*Organization and fighting qualities of the Mahrattas.*

The Mahrattas no longer employed their old methods of warfare in which hordes of mounted men hovered on the outskirts of the enemy's army harassing foraging parties, cutting off stragglers and threatening communications. These horsemen could never be brought to battle, as, on the first sign of regular troops in their neighbourhood, they simply dispersed and collected again at some distant point to renew their tactics. By 1800, however, they had been roughly organized by European adventurers who had exploited the artillery and infantry at the expense of the cavalry, with a result that mobility was lost and not replaced by that organization, discipline and training which is the backbone of modern armies. The consequence of this was that their enemy now had an objective, or in Wellesley's own words "something solid to go upon." In battle the cavalry generally held aloof and only joined in when the artillery and infantry had been successful. In spite of these drawbacks the Mahratta army was not one to be despised. Their artillery was numerous and the individual gunners courageous, often remaining at their guns until the last moment, as happened on the battlefield of Assaye itself. Wellesley, too, had a good opinion of them, as, writing after the battle, he described their infantry as being the best in India after the Company's troops, and nearly as well equipped.

*Wellesley's appreciation of the Situation.*

Before the campaign started Wellesley knew he had many difficulties with which to contend. The most important of these was the question of finding water in the Deccan, and he decided that the rainy season would be the best for his purpose as, for a few months at least, there would be sufficient water for his troops. In addition, this season helped him in overcoming the second difficulty, that of dealing with an enemy who was more mobile than himself. He considered that the size of the rivers would prevent the Mahrattas from crossing them in large numbers as they had no bridges. He proposed to take with him an efficient bridging train to enable him to cross any river when and where he liked. By this means also he safeguarded his rear as each large river was in the nature of an impassable obstacle to the enemy. His troops were gradually trained up so that, when the campaign opened, he could count on their marching at a rate of three miles an hour for long periods. He hoped that these

precautions in combination with initiative and bold attacks would enable him to deal with the superior mobility of the Mahrattas.

The collection of information, he knew, would be a hard task, as any reconnaissance by his officers could only be undertaken with an escort large enough to keep off the enemy's numerous horsemen. His agents were natives of the Carnatic and as easily recognisable to the Mahrattas as were the British themselves. Thus he was forced to rely on information from local inhabitants who were, by nature, unreliable, and whose sympathies were with the Mahrattas. These misled him again and again as is seen by the marches and counter-marches Wellesley was forced to make before he could bring the enemy to battle. On the other hand news of his intended movements was conveyed to his foes almost as soon as it was made known to his own troops. As a precaution against making avoidable mistakes, Wellesley made elaborate calculations as to time and space when detached troops were to rejoin the main army. These were so correct that he gained a reputation among his native troops for being able to recognise dust as being made by his own or by hostile troops. This faith in his calculations did not always extend to his own officers, as on one occasion, when he expected Stevenson to rejoin him, he sent an officer to discover whether a certain cloud of dust was made by the latter's force. The officer expostulated and Wellesley explained that it ought to be Stevenson. Finally the officer added "But suppose it should not be Colonel Stevenson." "Why then" said Wellesley "you are mounted on a damned good horse and you have eyes in your head, you must make off as fast as you can."

The last great problem was that of supplies. The Company's native troops were rice eaters, and that commodity was not procurable locally, but Wellesley hoped by the establishment of bases at suitable places and by a carefully organized system of supply columns he would be able to overcome this difficulty. The organization of these supply columns was a problem which gave the general considerable trouble, but he collected what was left of the famous Mysore bullock train, and he enlisted a large number of Brinjaras with their pack bullocks. The whole of the transport animals were carefully looked after and, where other generals lost hundreds, Wellesley only lost a few. This supply organization meant that foraging parties were cut down to a minimum, and the Mahratta horse had one of their primary objectives removed.

*The Opening Moves of the Campaign..*

War was declared on the 6th of August when Wellesley, who had been slowly moving forward from Poona, was at Walki 8 miles south of Ahmednagar. He intended to use the latter town as an advanced base, as he realised the strength of the fort which he described as being the strongest country fort he had seen except for Vellore in the Carnatic.

The Ahmednagar of those days consisted of the city which was surrounded by a wall made of stone set in mud, 18 feet high, and the fort which was as we now know it. The city was founded in 1494 by Ahmad Nizam Shah who gave his name to it, and two years later it is said to have rivalled Baghdad and Cairo in splendour. It remained in the hands of the Muhammadans until Shivajee captured it some 200 years later. The Mahrattas held it up to the year 1803, except for a short period when the then ruler sold it to the Nizam of Hyderabad. The present fort is said to have been built in 1560 on the site of an ancient earth fortress. Portuguese engineers are supposed to have helped in the design and building of it. Its great strength is best illustrated by the fact that, although it went through a long period of strife, it was only twice taken by assault. The first occasion is interesting as it shows that women took an important part in the affairs of the world in early days. Queen Chand Bibi, who was acting as regent for her grand nephew, successfully held it against the Moghuls, and is even reported on one occasion to have personally assisted in the defence of a breach. A few years later the Moghuls made another attempt and, this time, their investing operations were so successful that the queen decided that the only thing to be done was to make the best possible terms, but her officers objected and murdered her. However, their efforts to hold the fort came quickly to an end and the Moghuls shortly afterwards took it by storm. Wellesley, as we shall see later, was the only other person to take the fort.

On the 8th of August the city was somewhat easily stormed. Perhaps the briefest description of its capture is in the words of a friendly Mahratta Chieftain who was present. "These English" he said "are a strange people and their general a wonderful man. They came here in the morning, looked at the pettah wall, walked over it, killed all the garrison and turned into breakfast." However, the capture of the city was not quite the easy matter the Chieftain made out. The wall was strongly held and had some 40 bastions, of

which 8 mounted guns and the remainder were heavily loopholed. The garrison consisted of a thousand of Scindia's regular infantry with 5 field guns and a thousand Arabs, the whole being under the command of three French officers. Wellesley ordered three columns to make the assault. The right column consisted of the flank companies of the 74th (2nd Battalion The Highland Light Infantry) and the 1st Battalion of the 3rd Regiment Native Infantry, the centre column consisted of the battalion companies of the 74th and the 1st Battalion of the 8th Regiment Native Infantry. The composition of the left column is interesting as it shows how units were broken up in those days. It was made up of the advanced guard which consisted of one-half company of each battalion of Infantry under the field officer of the day and which were known as the "piquets." For the assault it was reinforced by the flank companies of the 78th (2nd Battalion The Seaforth Highlanders). The left column reached the wall first, but after gallant attempts it was unable to force its way into the town. The right column after having been delayed by an elephant of the Artillery train which took fright, succeeded in getting 300 men into the city before the last ladder was broken. These fought their way along streets near the wall until they came on the gate which was the point of assault for the centre column. This was opened and the two parties combined and quickly cleared the city of enemy, who fled in a northerly direction. Very few succeeded in reaching the fort. The total British casualties were 120 killed and wounded.

The ease with which the city was captured had a great moral effect on the garrison of the fort which consisted of 1,400 men and 66 guns. After a reconnaissance Wellesley decided to attack its eastern face, and, with this object in view, established, under cover of darkness, a battery of four 18-pounder guns some 400 yards from the wall. While this was being done a large fatigue party had to cut a way through the earth glacis which afforded complete protection to the wall. The battery opened fire at daybreak on the 10th August, and fired with such effect that the Commander of the fort desired that it might cease so that he could send a person to treat for surrender. Wellesley, who by this time knew the Mahrattas, replied that he would gladly listen to what the envoy had to say, but that the firing would not cease until the fort was either captured or surrendered. It surrendered the next afternoon but it was not until the hostages were actually in his camp that the general ceased firing.

Wellesley remained some time in Ahmednagar completing his administrative arrangements, and it was not until the 24th of August that the main force reached Toka. Great difficulty was experienced in crossing the river Godaveri which was in full flood; eventually this was effected by the troops making use of wicker boats covered with bullock skins. Five days later Aurangabad was reached. The next weeks were spent in march and counter-march as it appeared that Scindia intended to raid into Hyderabad. In the course of these operations Wellesley was forced to recross the Godaveri, but luckily this time it was fordable, a rare occurrence for the time of year. In the meanwhile Stevenson with a detached force had captured Jalna, but, unfortunately, moved westward again so that when the Mahrattas gave up their Hyderabad project and retired towards Ajanta, he was not in a position seriously to interfere with their retreat. On 21st September Wellesley and Stevenson joined forces at Budnapore and arranged to march on the enemy with a view to attacking them on the 24th. Two roads were available and Wellesley decided to use both, taking for his own force the eastern route and allotting to Stevenson the western. On 23rd the general arrived at Naulniah. It seems that Wellesley was well aware of the danger of dividing his forces like this and, even before he was attacked by his critics, explained that he did it deliberately as it would have taken so long to have marched his army by one road, and that there was always the chance of the enemy slipping away by the other. Fortescue suggests that the real truth is probably that he knew that Scindia was afraid of him and for that reason did not hesitate to take the most perilous liberties.

#### *The Battle of Assaye.*

Infantry Training, Volume II, 1926, Section 13 (1) gives the phases of the encounter battle as—

- (a) ' The gaining of contact by the leading troops.'
- (b) " The approach march.....to the assembly positions."
- (c) " The attack."
- (d) " Exploitation of success."

It will be interesting to follow out these phases in studying the actual battle

#### *(a) The Gaining of Contact by the Leading Troops.*

On arrival at Naulniah Wellesley was informed that the Mahratta chiefs had moved off with their cavalry but that the infantry was still encamped 6 miles away. Although Stevenson was out of touch 12

miles distant, he decided to attack and, after leaving his baggage at Naulniah, continued the advance. Riding ahead with his cavalry Wellesley came in sight not only of the enemy's infantry but of the whole of their army drawn up in the small peninsula formed by the junction of the Kaitna and Juah rivers. Here was an entirely unsuspected situation for, instead of finding himself opposed by 20,000 infantry, the general discovered the whole Mahratta force which was made up of—

30,000 Cavalry,  
20,000 Infantry,  
100 Guns,

while his own troops consisted of—

1,400 Cavalry,  
1,100 British Infantry,  
4,500 Native Infantry,  
22 Guns.

The enemy was on the north bank of the Kaitna river with the cavalry on the right and the infantry on the left. The river itself ran between steep banks and was so swollen by the recent rains that it was unfordable. Beyond it was undulating ground which was bordered on the north by the Juah river, on the banks of which was the village of Assaye.

It can be seen that Wellesley was in a decidedly awkward position. He had laid down certain principles for fighting the Mahrattas, and these were :—

- (1) They were never to be attacked in a position of their own choosing.
- (2) They were never to be allowed to attack the British however strongly the latter were entrenched.
- (3) They were always to be allowed to get into motion before being attacked.

Two courses were open to Wellesley :—

Withdrawal to Naulniah.

Immediate attack.

If he attempted the former he ran the risk of being surrounded by the enemy's cavalry and harassed until nightfall. Also as the Mahrattas would have discovered his camp he would have to detach a stronger baggage guard before he could attack the next day, but the possible arrival of Stevenson would considerably increase his fighting strength. If he decided to attack how could he carry out his principles ?

After a careful reconnaissance Wellesley decided that if he could attack the enemy from an easterly direction between the two rivers they would not be in a position to make the best use of their numbers. The crux of the plan was the existence of a ford over the Kaitna. Local guides strenuously denied that there was one, but the general had noticed two villages, one on each bank of the river, and sent an officer to find out if there was a ford between them. While this was being done two large bodies of Mahratta horse crossed to the southern bank of the Kaitna, but were easily held in check by the British cavalry. Presently the officer returned with the welcome news that there was a ford passable by all arms.

(b) *The Approach March to the Assembly Positions.*

Orders were sent to the infantry, which had been carefully concealed from the enemy, to move to their right towards the ford while the cavalry covered the movement. As the British approached the ford the enemy's guns opened fire doing very little damage. The crossing itself, luckily, was unopposed as great difficulty was experienced in getting the guns through. As the infantry began to ascend from the ford to the peninsula the Mahrattas who had brought up a battery of guns, opened fire causing considerable loss to the head of the column but not stopping its advance.

As he was fully convinced that he was attacking the enemy's left flank Wellesley drew up his force in three lines behind a small ridge which gave him concealment. The two leading lines were infantry and the reserve consisted of cavalry. Just as the formation was completed an officer galloped up with the news that the Mahrattas were changing front to the left, a manœuvre of which the general had not judged them capable. Only half the enemy's infantry was able to take up a position across the peninsula, the second line retiring to the Juah and forming up parallel to that river with their left flank on Assaye.

(c) *The Attack.*

As soon as Wellesley received this news he became anxious about his right and ordered the piquets to move to their right to make room for two Native battalions on their left. At the same time the 74th were told to come up on the extreme right, and the cavalry cautioned to watch that flank. Strict orders were given to the piquets not to



advance on, nor approach too close to, the village of Assaye. Just as these movements were about to take place the Mahrattas brought forward some guns and opened such a destructive fire that Wellesley was forced to order the line to advance, as the troops would not have been able to remain inactive under it. This bombardment was doubly unfortunate in that several of the British guns were damaged and most of the changes in the battle front had to take place after the troops were in motion.

As the advance began the whole of the enemy's 100 guns opened fire doing considerable execution in the centre of the line. However the 78th on the left and the troops in the left centre under Wellesley's personal command pushed on quickly and, after firing only two rounds a man, bayoneted the Mahratta gunners who refused to leave their pieces. The enemy's infantry on this flank retired as soon as the guns were overrun. On the other flank the battle was not going so well. The piquets, dazed by the terrible artillery fire, did not correct their direction and advanced directly on the village of Assaye carrying with them the 74th who were endeavouring to form up on their right. These two bodies of troops were subjected to a terrific musket and artillery fire, and eventually the piquets broke, leaving the 74th to withstand it alone. A body of Mahratta horse came swooping down on their right flank, but still the Highlanders remained unbroken. Help was at hand. The Commander of the cavalry who had been watching for the moment to act, ordered the 19th Light Dragoons and a Native Cavalry Regiment to advance. These charged down the Mahratta horse scattering them easily. Continuing to advance they came upon the enemy's infantry who stood firm for a short time, but nothing could stop the 19th who eventually charged into them and the whole broke and fled across the Juah. Meanwhile Wellesley had wheeled his left flank to the right and dispersed the enemy's reserve across the Juah, where the cavalry, which had by now reached the further bank, was waiting to receive it.

Wellesley reformed his infantry on the banks of the river, and found that the battle was not yet over. The Mahratta cavalry remained on the western edge of the battlefield supported by Pohlmann's infantry, while a mass of partly unbroken and partly rallied infantry was still round the village of Assaye. Two Native battalions were ordered to attack this mass, but it was not until the 78th were put into the fight that the enemy finally retired across the river. The British cavalry,

which had been rallied after its charge, was ordered to attack Pohlmann's brigade, while Wellesley led the infantry to complete the destruction of the enemy's guns which had opened fire again as soon as the British had passed through them. After withstanding a half-hearted charge from the cavalry, Pohlmann withdrew his troops and the Mahratta horse, which could have done so much, lost heart and rode off the field.

(d) *Exploitation of Success.*

The British, who had marched 24 miles before the battle, were in no condition to pursue, and at six o'clock the engagement closed leaving Wellesley victorious in his first action as a general.

The enemy did not halt until they had put 12 miles between them and the British troops, and the next morning continued the retreat and never stopped again until they reached Ajanta. Stevenson, who had been misled by guides, did not reach the battlefield until the evening of the 24th, and was forced to remain there throughout the 25th while his surgeons attended the wounded. On the 26th, still leaving Wellesley encamped near Assaye, he started off in pursuit of the Mahrattas.

(e) *Casualties.*

The British losses amounted to 650 Europeans and 800 Natives killed, wounded and missing. While the enemy left 1,200 dead on the field and 98 guns. Their wounded were estimated at 4,000.

It is interesting to note some of the casualties in detail.

The 74th lost 11 officers and 113 men killed and 6 officers and 271 men wounded out of a total strength of about 500. One Sepoy battalion, the 2/12th (now to 10/1st Punjab Regiment), lost 228 in killed and wounded, out of a total strength of about 600. Out of 1,400 of all ranks, the Cavalry Brigade had 200 men killed and wounded, 315 horses killed and 400 wounded.

*The Closing Stages of the Campaign.*

Throughout October and November followed a period of manœuvre which is difficult to follow without going into much detail. The British forces executed march and counter-march and succeeded in foiling various attempts of the Mahrattas to move into Poona and

Hyderabad, but never succeeded in actually bringing the enemy to battle. Wellesley had to be very much on his guard to prevent intelligence of his proposed movements reaching the enemy and eventually had to resort to the practice, which was afterwards used with such striking success by Stonewall Jackson in the American Civil War, of ordering his troops to parade without telling them before hand the direction of the march. He also had to contend with numerous attacks on his supply convoys, and it was only due to the initiative of his officers and the discipline of his troops that these ever reached him. On the 20th of October the important fort of Asirgarh was easily captured by Stevenson. There were obviously a good breed of dog and some excellent fowling pieces taken in the fort, as a notice in general orders was later published. This read—"Major-General Wellesley is very desirous of having some dogs which were found in Asirgarh and also some fowling pieces taken there, and he will be much obliged to any gentleman who may be in possession of those dogs or fowling pieces if he will send them in to him. The full value will be returned." History does not relate whether he got the dogs and guns.

Eventually on the 29th of November, Wellesley succeeded in bringing the Mahratta army to battle at Argaum.

#### *The Battle of Argaum.*

The British forces which consisted of about 15,000 men in all were just about to halt after a 20 mile march when Wellesley perceived the enemy's army drawn up for battle some 5 miles away. Immediately the troops were put in motion again and advanced towards the Mahrattas. The country for the first few miles of the march was covered by high crops, but on reaching the village of Sirsoni it was found that the ground became open. The Mahrattas had placed their guns to cover the only exit from the village, and as the leading battalion debouched it was met by a terrific cannonade with the result that it broke and involved the next two battalions in the panic. Luckily Wellesley himself was at hand and succeeded in rallying the three regiments and ultimately led them back to their position in the line of battle. The British were drawn up in two lines with the infantry in the first and the cavalry in the second, while the enemy was in a single line with the cavalry on the flanks, and numbered between 30,000 and 40,000 in all. When the orders were given the British line advanced steadily to within about 60 yards of the enemy's guns when they were

charged by a body of Arabs. This attack was easily beaten off and, when they saw it fail, the whole of the Mahratta forces turned and fled leaving 38 guns behind them. The cavalry was sent in pursuit and did great execution in the moonlight.

*The End of the Campaign.*

The next morning Stevenson was ordered to pursue the retreating enemy, and later was joined by Wellesley with the remainder of his force. The Mahrattas who had fled from Argaum were reported to be in the hill stronghold of Gawilghur to which place the march of the British army was directed. The latter stages of the march were over difficult country in which the actual roads themselves had to be made before the guns could be brought up. The fort itself was extremely strong, and in some places the shots from the battery simply rebounded off the walls and rolled downhill almost to the muzzles of the guns. It was ultimately stormed after a three days siege, and practically the whole garrison of 4,000 regular Mahratta infantry was put to the sword.

These reverses and General Lake's progress at Delhi and Agra convinced the Mahrattas that it was useless to continue the struggle, and the day after Gawilghur was captured peace envoys reached Wellesley's camp.

*Comments.*

(a) *General.*

The Chief lessons of this campaign are—

(1) The necessity for having a smoothly running administrative system before beginning a campaign.

The time and thought which Wellesley gave to his supply and baggage train is noticeable throughout. Most of his correspondence before the campaign started is on this subject, and he did not make a move of any sort until he considered that the means at his disposal were sufficient. The Peninsular War emphasises this point still more, and Fortescue in his "Wellington" goes so far as to say that the victories there were only made possible by the highly organized British supply service.

(2) The value of highly disciplined armies when opposed to those less highly trained.

This is brought out by the two big battles of the campaign and does not call for further comment, but Wellesley's efforts in Portugal and Spain to make his army into a thoroughly well disciplined force show that this lesson was not lost on him.

(b) *The Battle of Assaye.*

Field Service Regulations, Volume II, 1929 section 62 (2) gives the special considerations in the attack as—

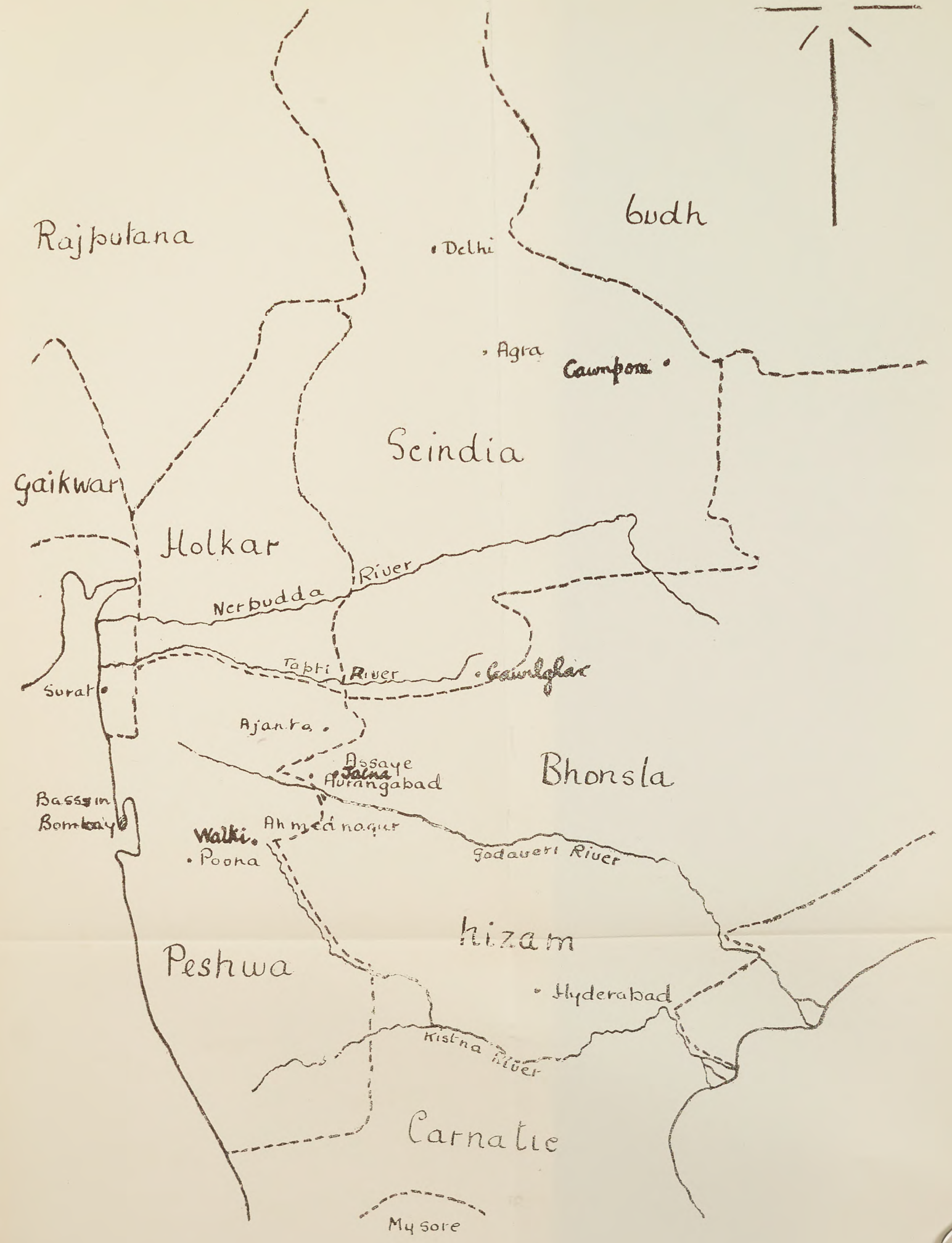
(1) "Time is of the utmost importance. The hostile troops must be driven in before the enemy's main body has time either to develop an offensive or to strengthen his defences."

(2) "Decisions must be made quickly."

(3) "The plan of action must be simple and must be capable of being put into effect rapidly."

If Wellesley's actions in this battle are followed, it is apparent that he carried out these principles to the letter. As soon as he heard that the enemy was moving off he rapidly continued his advance, although the troops had already marched 18 miles. Later, when he found the enemy drawn up facing south, he attacked from the east and made them change their battle arrangements. His personal reconnaissance was a model one, as he did not hesitate to push on well ahead nor omit to take his local protection with him. Having finished his reconnaissance his plan was quickly made. It was so simple that it resulted only in a slight change of direction for the infantry before they formed up in battle array. It is true, however, that owing to unforeseen movements by the Mahrattas the original line had to be altered at an unfortunate moment, but the plan was good in that it was elastic enough to be easily changed to counteract the enemy's action. The speed with which the plan was put into effect is illustrated by the fact that, although the enemy had considerably less distance to move, both lines of battle were ready at approximately the same time.

# India 1803



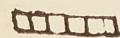

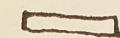
Scale 32 miles to 1 inch

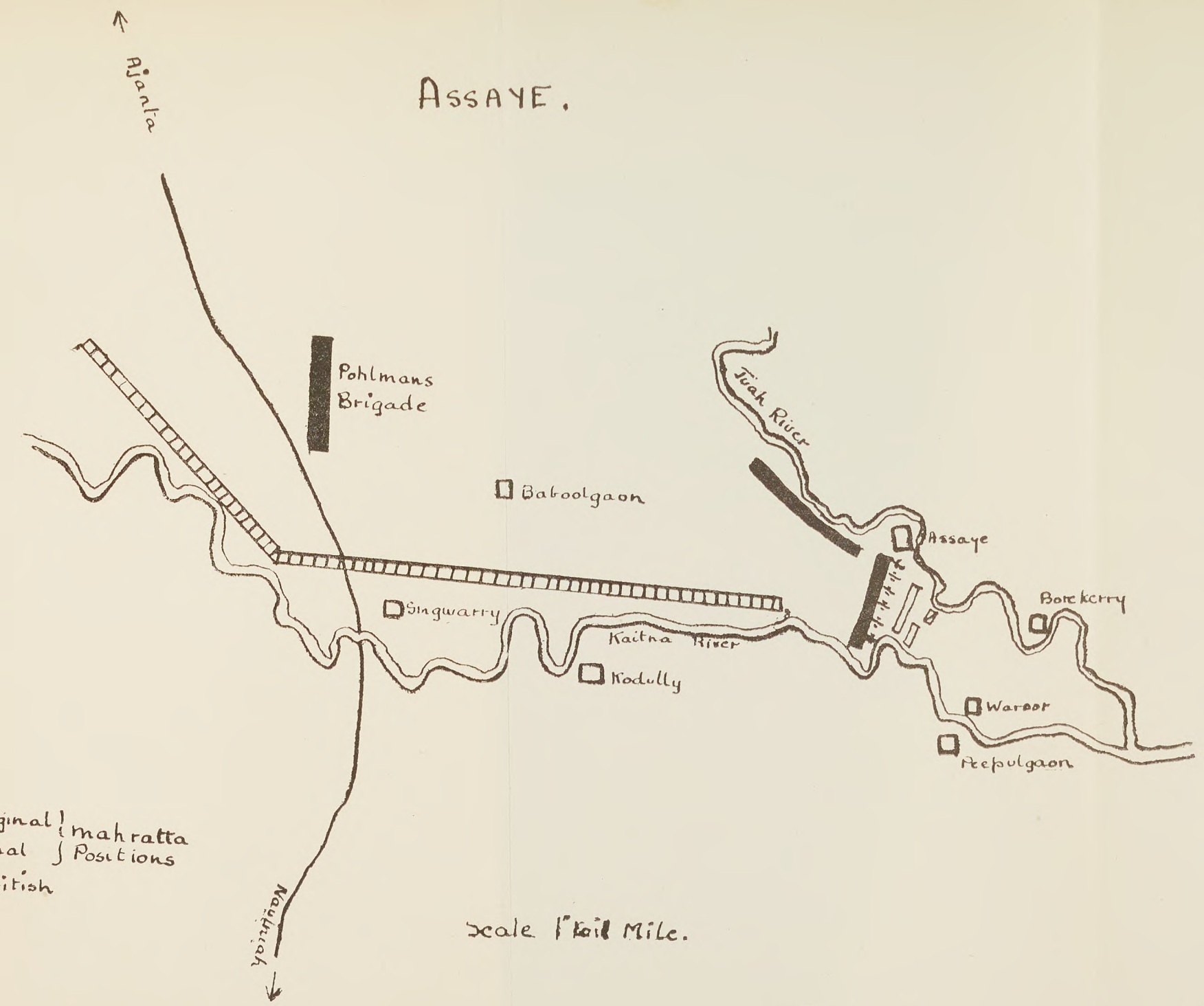




# ASSAYE.



-  original } maharatta
-  final } Positions
-  British



Scale 1/4 Mile.





## SOME CONSIDERATIONS GOVERNING THE CHOICE OF ARMoured FIGHTING VEHICLES FOR INDIA.

By

MAJOR W. J. H. HOWARD, D.S.O., ROYAL TANK CORPS.

1. The immediate predecessor of the modern A. F. V. was the armoured train, which was made possible by the power of steam as a locomotive force. But as the distinctive attributes of the modern A. F. V. are the combination of Fire Power, Armour and Mobility, something was needed to enable the train to operate off its lines to gain greater mobility. The advent of the petrol engine achieved this, first by giving the modern A. F. V. the use of roads and, later, by means of track vehicles, the power to roam at will across normal country.

2. The uses of A. F. Vs. to the Army in India are briefly—

(i) in both Peace and War—

(a) Internal Security ;

(b) Convoy and Road Patrol.

and (ii) in War alone—

(a) Reconnaissance ;

(b) Co-operation with other Arms during actual fighting ;

(c) In the event of the Army in India being called on to fight alongside the B. E. F. outside India, the augmentation of the very limited number of A. F. Vs. available at the commencement of a campaign, by any which can be spared from India.

3. Types of A. F. V. and their general characteristics including approximate cost.

(a) *Armoured Cars*, 6 and 4 wheeled, with pneumatic, natural air pressure or solid tyres.

Cost.	Weight.	Crew.	Circuit of action.	Armament.	Maximum speed on level.	REMARKS.
£ 5,000 to £ 3,000.	10 tons to 4½ tons	5  5	80 to 120  miles	2 Vickers ·303  do.	35 mph. to 45 mph.	The first named figures in each case apply to the Guy 6-wheeler.

(b) *Tanks.* Vickers medium or Carden-Loyd light.

	Cost.	Weight.	Crew.	Circuit of action.	Armament.	Maximum speed on level.
Medium.	£12,000	11 tons.	5	120	1 3-pdr. 2 Vickers.	20 mph.
Light.	£2,000	2½ tons.	5	„	1 Vickers.	30 mph.

For the purpose of this article,

We will presume that—

- (i) Pneumatic tyres are not in use, as in the writer's opinion the risks arising from them are too great except on long distance reconnaissance, which rôle will seldom be required of Armoured Cars in India, and,
- (ii) Only one gun can be effectively used at any given moment.

In our search for the best A. F. V. for India, we can rule out the Medium Tank for the present owing to its cost, and also the 6-wheeled Armoured Car owing to its weight and cost compared with its armament; this leaves us with the 4-wheeled Armoured Car and the Light Tank, the characteristics of which we will briefly compare.

*Four-wheeled Armoured Cars and Light Tanks.*

(1) The armament of both is the same, *i. e.*, 1 Vickers gun (as the 2nd gun on the A. Cs. cannot be brought into action whilst the other gun is firing).

(2) The speed of the A. C. is greater but its circuit of action will be approximately the same.

(3) The initial cost of Light Tanks will probably be slightly less.

(4) The crew of 3 is a greater economy than the crew of 5 in the A. C., therefore greater economy of maintenance and man power.

(5) The obstacle negotiating capacity of the Tank is obviously much greater, *e.g.* a small ditch or vertical obstacle, rough country or wet mud, will impede the Armoured Car but not the Tank.

(6) The Tank again holds the field in general handiness and can pirouette round in its own length (a useful asset in a confined space).

(7) Destruction of un-metalled roads in hilly country in wet and even in dry weather by the wheeled vehicle weighing 5 tons is far

greater than that by a Tank, of even the same weight, owing to the greater pressure per square inch of the smaller bearing surface of the wheeled vehicle.

4. The advantages and disadvantages of the Light Tank in both peace and war.

(a) For internal security, tanks will be more suitable, once on the scene, than A. C.s owing to their power of manœuvre in restricted spaces and in the event of encountering quickly constructed obstacles *e.g.*, small trenches or barricades, they could more easily negotiate them without the crew exposing themselves. Further, the moral effect of being able to swing rapidly from one direction to another would be great. The disadvantage of lesser speed would not be felt after their arrival. Though no doubt the time taken in getting to the scene of action might be of considerable moment, *e.g.*, in the case of having to negotiate distances of 60 or 70 miles, when it would not be worth while to despatch them by train. But as there is usually several hours' warning prior to disturbances serious enough to call in military aid, this disadvantage is thought to be well outweighed by the many advantages.

(b) Convoy work. This question has been so thoroughly and effectively dealt with by Major Gray in a previous article in the January number of this Journal, that it is unnecessary for me to add anything further to the many reasons he has adduced for the superiority of the Light Tank. But in regard to the actual numbers of Carden Tanks, which could be purchased for the price of four wheeled A. Cs, I hope he will forgive me when I mention that it is the Carden-Loyd M. G. Carrier and not the Light Tank which costs about £500. This, however, in no way detracts from the logic of his argument that more light tanks could be bought and maintained than A. C.s for a given sum, and that, therefore, convoys could be more effectively protected at the same cost by Light Tanks than by A. C.s.

Advantages and disadvantages in War.

(a) *Reconnaissance*.—As no long distance reconnaissance could be carried out by A. C.s in frontier warfare owing to the ease with which roads could be blocked behind vehicles operating at any considerable distance ahead of a column, and owing to the difficulties of A. C.s operating off roads, it would appear that Light Tanks could carry out reconnaissance duties as effectively, though not quite as rapidly as A. Cs.

(b) In regard to co-operation with other arms. The unsuitability of A. C.s for co-operation in normal warfare is always obtruding itself, and the result has been frequent comments by the General Staff on the undesirability of using A. C.s as Tanks. I suggest that this frequent misuse of A. C.'s is the unconscious expression by Commanders, of a definite need for Tanks, *i.e.* a sound cross country vehicle.

(c) In the event of the Army in India being called upon to fight alongside the B. E. F. in a big war, it can well be imagined how welcome even three or four companies of Light Tanks would be at the beginning of a war to augment the limited numbers of A. F. Vs. then available.

5. The conclusion we must arrive at is that Light Tank Companies could replace with advantage at least a proportion of the existing Armoured Car Companies for general purposes. As the very limited number of Armoured Car Companies in India is likely to be increased in the near future, the opportunity of making a start by creating Light Tank Companies will be afforded with the formation of any new companies. The greatest gains from an experimental point of view are achieved by completely equipping a unit with a new vehicle. Results in bulk then make their appearance, and can be judged on a broad basis, furnishing valuable data for modifications and further design. But to create the ideal light tank for India will take time, and we must refrain from expecting the Carden-Loyd immediately to fulfil all our needs. If it does it will certainly be an even finer vehicle than its many exponents claim it to be. It has taken six years of improvements and modifications to evolve the Medium Tank at Home to the high state of efficiency it has now reached. If we gradually replace our A.C.'s in India by Carden-Loyd Light Tanks, each year will see the evolution of a vehicle greatly improved by experiment and modification to suit the special needs of the Army in India, while if we wait for the Home Authorities to evolve the right article for us, we may wait long and wait in vain. The best A. F. V. to suit India's special needs in regard to terrain, climate, and use, cannot be evolved outside India.

A WORTHY EURASIAN SOLDIER,  
RISALDAR-MAJOR THOMAS HARLING, SARDAR-BAHADUR.

By  
C. GREY.

Though the deeds of a certain number of Eurasian soldiers of fortune, who entered the service of Indian rulers, and there attained fame and fortune, have been chronicled, nothing is yet on record concerning a corresponding class, many of whom entered the British service in the ranks of Indian units. Certainly they had fewer opportunities than their compatriots employed by Indian rulers, but, even so, a number of them were brave, and rendered good and loyal service.

Up to the outbreak of the Indian Mutiny, the native units whether regular, provincial, or local, numbered amongst them, besides the British officers, a number of Eurasian and European non-commissioned officers and men, the former were mostly buglers or drummers. Each regiment of infantry had a European sergeant-major and quarter master sergeant. The former took precedence of all native officers on parade and in action. The latter was a non-combatant.

The buglers and drummers were the sons of European soldiers who had married or formed connexions with Indian women. These soldiers were not only members of the Company's forces, some were Queen's soldiers who, on proceeding to England, left behind their Indian wives and their offspring. The children were invariably provided for by the Company, the girls being sent to orphanages, and the boys under ten years of age to similar institutions. Boys over that age were sent to selected regiments, where they were trained and then posted to the units requiring them. Boys of pure European parentage were sent to the Company's European infantry or artillery, for it was the policy to keep these as far as possible clear of men of mixed blood.

The musicians were paid, clothed and rationed as Europeans, but until the age of 18 received only half-pay. Their numbers were very considerable, for there were over two hundred native units of all descriptions, most of which took from four to eight drummers, pipers or trumpeters. Their opportunities were limited, for they were not, as a rule, accepted for the combatant ranks, and all they could attain was the position of drum-major, or its equivalent.

The rule forbidding the enlistment of men of mixed blood into the fighting ranks was introduced soon after the revolt of the French colonies during the Revolution. The negroes had all been led by mulattoes or quadroons, and the success of these men as leaders, induced considerable alarm with the Government of India, in whose military and civil service this class of men was to be found in considerable numbers, sometimes in prominent positions.

This alarm led to the passing of a Disability Ordinance, which excluded Eurasians from any but minor clerkships in Government service, and from the combatant ranks of the European regiments. At the period of the Mutiny, a considerable number was serving with native regiments as musicians, and their position was extremely difficult. A few, like the European non-commissioned officers, were murdered by their comrades, a few more threw in their lot with the sepoy, but most were permitted to escape unscathed, and found their way to places still under British control.

As the number of the regiments in revolt increased, so did that of the unemployed drummers, who had to be paid and rationed. and, as there was a shortage of fighting men, it was decided to embody these spare men into regiments or battalions, with whom were mixed up some stray Europeans. One of these infantry battalions, called the East Indian Regiment was formed at Calcutta. Whether it ever got any further we cannot say, for we have been unable to trace anything beyond the order for its formation. Most of the men up-country, were embodied into light horse units, or mixed up with the artillery, one special unit, composed entirely of them, being called the Eurasian Mountain Battery.

The Lahore Light Horse, embodied in 1857, was employed in rounding up the mutineers in the Punjab, and after that went on to Lucknow, where it saw considerable minor service during the closing operations of the Mutiny, earning favourable mention. The Meerut Light Horse was similarly employed, and both were disbanded early in 1860. The Eurasian Mountain Battery was stationed at Shillong and employed during the Lushai campaign of 1868, after which it was disbanded.

Even before the Mutiny a certain number of Eurasians were permitted to join the fighting ranks of the Indian army, these being mostly men selected from the musicians. These men do not concern us for the moment; so we may confine ourselves to the subject of our present sketch, whose example is, we think, one to be commended.

In 1845, at the age of 13, Thomas John Harling joined the 29th Bengal infantry. He served with his regiment in the Punjab campaign of 1848-1849, and in 1852 was employed against the Mohmands on the Frontier, receiving for these campaigns two medals and four clasps. When the Mutiny broke out the 29th Native infantry were stationed in Moradabad, and for a considerable time remained loyal, even to the extent of assisting to repel attacks made on that station by bodies of mutineers.

However, the general unrest ultimately spread to the 29th, and on the 2nd June, 1857, the battalion broke out, plundered the station, and then marched off to Delhi, where it was ultimately cut to pieces. The men did not molest any of their officers or the civilians of the station and their families, who were permitted to leave for Naini Tal accompanied by such of the Eurasian drummers as chose to throw in their lot with them. Some of the latter went with the mutineers, from whom they deserted on the march, and others remained at Moradabad. Harling was the only one who accompanied the officers to Naini Tal.

During the outbreak, and on the way to Naini Tal, he made himself so useful that the officers presented him with a gold watch and chain in recognition. At Naini Tal he was attached to the 66th Gurkhas, and served with them in repelling a rebel attack on Haldwani. In August 1857 he joined the Kumaon militia, a mixed body of Europeans, Eurasians and loyal natives, and with these he was employed, in September and November, 1857, in two minor actions in the hills against bodies of mutineers.

In December of that year he was directed to join the Meerut Light Horse and, on his solitary way to that station, encountered, near Bareilly, two sepoy who had a European woman, a Mrs. Millet, as prisoner. Harling, who was mounted, attacked the sepoy and, though shot in the thigh, succeeded in killing both and rescuing the woman whom he took into Bareilly. After recovering from his wound, which was not until February, he joined the Meerut Light Horse, with which he served through the Rohilkund campaign of 1858.

In January 1859 he was deputed to assist in forming the Benares Light Horse, a corps of Rohillas, and with them served as a Ressaidar in the operations in the Trans-Gogra district and along the Nepal border, cutting off the retreat of mutineers. He was promoted to



Risaldar, and during the campaign gained a reputation for skill and bravery, being mentioned for cutting up a band of mutineers who had attempted to break back from Nepal.

The Benares Light Horse was disbanded in 1860. Harling, was retained in the service and posted to the 14th Bengal Cavalry, with which he served in two actions during the Bhutan campaign of 1862. After this he saw no further service until 1879, in which year he accompanied Sir Frederick Roberts to Kabul, serving on the staff, and was present at the actions of the Shutargardan and the defence of Sherpur cantonment. For his services in this latter campaign he received two medals, the Order of British India and the title of Bahadur.

In 1882 he was promoted Risaldar-Major, and in 1884 to the First Class of the Order of British India, with the title of Sardar-Bahadur, and, while still serving, died at Sialkot in February 1889, thus ending an honourable career of 44 years' service.

## THE PRINCIPLES OF TRAINING.

By

CAPTAIN H. C. DUNCAN, 13TH FRONTIER FORCE RIFLES.

No one has yet defined and catalogued the principles of training. Occasional reference to these principles is made in the training manuals but the principles themselves are difficult to unearth.

At a time when the Army is in a state of reorganization and evolution, principles are our great mainstay. This fact is constantly being stressed as regards the principles of war. It would appear to apply equally to the principles of training. They, too, from their nature, must be immutable.

The type of man we have to train to-day differs from the pre-war type. Training is more complex. Pre-war methods and ideas regarding training have to be modified just as tactical ideas and methods have been modified. Many units have moved with the times. They are, to-day, as efficient, or more so, than before the war. In other units something fundamental is wrong. Their training system is defective and training is organized in a haphazard way. The reason for this state of affairs is the failure to observe those principles which are the foundation of all good training.

Are we consistent? We expatiate on the importance of the principles of war, the principles of organization, the principles of movement, the principles of administration, etc. The principles of training are just as important. They should be as readily available as the others. Nowhere are they so set out that he who runs may read. When a commander is guilty of a breach of the principles of war or of movement, he is told where he has gone wrong. The mutilated precept is dangled before his eyes. There is a reasonable chance that he will not again trample on that particular principle. In training the procedure with transgressors is different. There seem to be two recognised methods of dealing with a unit whose training is not on sound lines. One is to endeavour to discover the root cause of the trouble, and this is generally a difficult matter. The other method is much simpler. The Commanding Officer is censured. He doubtless deserves to be. If the unit's inefficiency becomes too

glaring the Commanding Officer is removed. Often a Commanding Officer, realising that his unit's training is not up to standard, concentrates on something which will distract attention from the shortcomings of his command. He aims at earning a reputation for smartness in turnout or he devotes an undue amount of time to some good window-dressing subject, the results of which go down on paper and are incontrovertible. In this way he escapes from the possibility of an accusation of slackness or inefficiency. He may even earn commendation.

In the Territorial Army at Home the situation is worse than in the Regular Army. There the field for the selection of commanding officers is smaller. A Commanding Officer who is an indifferent trainer cannot, for that reason alone, be removed off-hand. More often than not it is not his fault that he cannot train his unit. He has never been taught how to. The same Commanding Officer will possibly make quite a good plan if he is confronted with a tactical problem. He is often a man of considerable intelligence. He has read his books. These books tell him how to make plans and, what is equally important, they give him certain beacons to light his way. These beacons are the principles of war. If the same Commanding Officer could be given a definite list of principles of training it is likely that the standard of training in his unit would show improvement.

The case of the Territorial Army Commanding Officer is stressed because he has to work against time. Unless he knows the best methods he cannot hope to produce satisfactory results. It is not suggested that it is only Territorial Army Commanding Officers who require sign-posts when plan-making or training. There are few of us who have not at times been grateful for the clear list of principles of war laid down for our guidance. We like to be able to apply these principles like a yardstick to the plans we are called upon to make. Moreover we are officially directed to apply them in this way.\* It is, of course, realised that such artifices are not for the fully trained strategist, tactician or trainer. They do, however, greatly assist the keen but less highly skilled individual.

It is not suggested that lists of the principles of war or of the principles of training can provide short cuts to salvation. He who is word perfect in the principles of war is not necessarily a tactician. Lists of principles are primarily guides and checks. Nor is it suggest-

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\* Memorandum on Army Training, Collective Training Period. 1927, page 9.

ed that the application of principles of training will be any easier than is the application of the principles of war. The application will vary in accordance with the circumstances of each case. It is, of course, obvious that principles of anything can only be applied by someone who possesses a good knowledge of the subject.

\* \* \* \* \*

So much for the diagnosis. Now for an attempt at the cure, or at least an attempt to discover certain curative measures. It is hoped that other pens will fill in the gaps.

Principles are general truths or laws, and are the fundamental sources from which everything else proceeds. So says the dictionary. In Army parlance a principle is a general guide to action.

The principles of training, like those of war, must be common sense. Were it not so there would be fewer efficient units in the Army to-day.

It has already been said that principles in themselves possess no merit. It is only in their application for the achievement of some specific purpose that their value lies. In the case of training this specific purpose is the preparation of our forces for war. By keeping this all-important fact in mind we shall prevent waste of time on non-essentials and shall keep in their right perspective the various subjects which we have to teach.

Armies have always been more easily trained in a war atmosphere. It is psychologically impossible to create a war atmosphere when no war is in sight. The best we can do is to create a determination to train for war. This requires energy and imagination on the part of the trainers. We must get nearer to the war atmosphere if we would reap some of its benefits. The principal benefits are:—

Greater concentration on the part of those under instruction and therefore better value from that instruction.

More honesty in training. The greater determination to become fit *in all respects* for war means that 'window-dressing' subjects are not allowed to displace other essential but less showy work. "Returns" are not so popular in war. Real efficiency ranks higher than paper efficiency.

The ultimate aim of all training being success in battle, the principles of training must be such that, correctly applied, they make possible the achievement of this ultimate aim.

What, then, are the principles?

Every single item of training ought to have an immediate object or end in view, the attainment of which is necessary if we are to be sure of success in battle. Drill may have as its immediate object the inculcation of discipline. Discipline is itself one of the fundamentals of success in war. Therefore the object of the drill is to assist in preparing for war.

The first principle, then, is that of the object.

“A good trainer requires...an exact idea before hand of the result which he is aiming at and how that result is to be achieved.... There must be a clear reason in the trainer's mind for every lesson that he teaches.” Infantry Training Vol. 1, Section 11.

Having decided on the result aimed at, *i.e.*, the object, and how that object is to be achieved, the trainer must keep both in view throughout the exercise. Training has an unpleasant way of getting out of hand unless constantly kept in check by this principle. Time is wasted on minor points. The training takes charge of the object instead of the object dominating the training. Most of us have experienced this sort of thing:—

A tactical scheme is made out. Lessons to be brought out are stated at the outset. The exercise is carried out. After it is over there is a conference at which various people describe the action of their units. A certain amount of criticism and/or praise is handed out and the conference breaks up. No effort is made to show how the lessons were or were not brought out. Afterwards one asks some junior commander what he has learnt, but he is probably unable to mention any definite point. Failure to drive home the special lessons of the exercise is a breach of the principle of the object.

The second principle is that of Mutual Co-operation.

This is the principle which inspires the reference in Infantry Training to the need, in a trainer, for “sympathy with and knowledge of his men.”

We also find in Training and Manœuvre Regulations that officers and non-commissioned officers “should study the individual character of each man in their sub-unit, and adapt their teaching to his character and intellect.” Commanders must, of course, make a similar study of the individual character of each of their subordinate commanders.

We no longer live in days when the private soldier “isn't paid to think.” Modern war requires a soldier capable of using initiative on

the battlefield. We have to encourage individuality in every way we can. The trainer must understand his men.

The study of character is invaluable and fully repays the efforts required. "Above all things it must be remembered that success in war depends largely on a knowledge of human nature and how to handle it to the best advantage." (Field Service Regulations Vol. 2, Section 3). To handle men one must know them and must be able to take full advantage of each man's individual characteristics.

But in war individuals can only be handled when they are disciplined. Discipline must therefore be the foundation on which individuality in the Army is built. Discipline, if it is to stand the stress of war, must be based on confidence and respect. Confidence and respect, in their turn, are the result of mutual co-operation between the men and their leaders.

Only when there is this mutual co-operation is it possible to get the best results in training. The trainer and the trainee work in harmony. They assist each other. The processes of teaching and being taught are complementary. Marshal Saxe's mule did not learn very much on its many campaigns.

The principle of Simplicity.

"The commander will secure simplicity by self-restraint. He must set out to teach one lesson only at a time and he must strip his teaching of everything which does not help to drive his lesson home." Infantry Training, Volume I, Section 11 (4).

Little need be said about this principle. It is an obvious necessity. Unfortunately it is often the really keen trainer who neglects it. It is the desire to do just that little bit extra that is the cause of his undoing.

The principle of Uniformity.

This principle is mentioned in Training and Manœuvre Regulations. Referring to the principles laid down in Field Service Regulations, it says, "The instructions in our training manuals and training memoranda are based on these principles in order to ensure unity of doctrine in peace training and unity of action in war." And again, "Training in the art of command should aim primarily at . . . producing in commanders of every grade throughout the army, a sound and uniform method of approaching military problems."

In short, the application of this principle ensures a common doctrine. In war it is necessary that an order should re-act in the same way on different people. To get collective efficiency uniformity is essential.

#### The principle of Continuity.

This is the principle which underlies the division of our training year into individual and collective training periods. Training and Manœuvre Regulations refer to the need for progression in collective training. The need exists equally in individual training.

It is difficult to maintain continuity in training. Failure to do so, however, is sure to lead to boredom, and boredom is the enemy of all training. "Monotony is similar in its effects to fatigue."

This is probably the most difficult to apply of all the principles. Some applications of it are given in the Memorandum on the Individual Training Period (Home) 1928-1929. It is interesting to note a reference to squadding of men according to service and capacity. This is a great advance on the days when the section organization was held sacred even on an individual training parade. If the object is to train the individual all action must be subordinated to that object.

Application of this principle ensures that progress is methodical and coherent.

#### The principle of Decentralization.

This is fully explained in Training and Manœuvre Regulations Sections 1 and 2. It requires that every commander shall be responsible for the training of all under his command: also that a commander shall devote himself principally to the training of his unit as a whole and to the instruction of his subordinate commanders, while delegating to these subordinate commanders the details of the training of their own commands.

We tend to over-centralize, whereas it is only judicious decentralization which will encourage a sense of responsibility. Here again the ultimate aim of training is an unfailing guide. We must remember that in war we shall have to delegate responsibility. In training, the willing acceptance of responsibility must be encouraged. This applies to the rank and file as well as to the leaders.

The principle of Economy of Effort.

The subjects which have to be taught are many and diverse. All are important, some more so than others. All are inter-dependent. We have to ensure that effort is apportioned according to the relative importance of each subject. The observance of this principle is another safeguard against 'window-dressing.'

The principle of Elasticity.

All ranks must be able to perform in war the duties which are likely to devolve on them if our existing forces are expanded. "In order to meet the conditions which would then prevail, all commanders and staff officers must be fitted in peace to fill appointments in war considerably higher than those which they normally hold." (Training and Manœuvre Regulations Section 1 (9).

It is suggested that this applies to the training of the private soldier as well as to that of commanders. In our small army no private soldier can be reckoned as thoroughly efficient unless he can lead a section. That is one of his probable duties in war.

To sum up.—Principles can only be applied by those who have knowledge.

The ultimate aim of all training is to prepare our forces for war so that we may achieve success in battle.

The following are, in order of importance, the principles :—

1. The object.
2. Mutual Co-operation.
3. Simplicity.
4. Uniformity.
5. Continuity.
6. Decentralization.
7. Economy of Effort.
8. Elasticity.



## MILITARY NOTES.

## BELGIUM.

## PEACE TIME STRENGTH OF THE ARMY.

According to the *Project de Loi*, the 1930 Peace Establishment, from a Budgetary point of view, is fixed as follows :—

Volunteer and re-engaged men	..	20,500
Annual contingent (allowing for wastage)		40,500
Called up for <i>rappel</i> service	..	41,000
		<hr/> 102,000

The real Peace Strength, however, is approximately 65,960 men, not including the 41,000 men called up for periods of *rappel*, distributed as follows :—

Annual contingent (gross)	..	44,000
Officers	..	4,250
<i>Sous-officers</i>	..	8,200
<i>Caporaux</i>	..	5,500
Re-engaged men	..	4,000
		<hr/> 65,950

The peace establishment for the year 1930 was fixed at 65,000 (Official Gazette dated 4th January, 1930).

## DRESS REFORM.

A commission under General Kempeneer, *Directeur du Personnel*, has been appointed to study the dress of the army.

There is a general feeling among the senior officers of the army that there is need for a full dress uniform of some other colour than khaki.

According to the press the commission has recommended a blue uniform.

## GENDARMERIE RE-ORGANIZATION.

Much agitation has taken place in the Conservative press concerning the alleged intention of the Minister of National Defence to appoint an army officer to command the gendarmerie.

A question was asked in the Senate, and the Minister replied that he could not be expected to answer a question concerning an illegal decision, which he had not taken. He added that he was not prepared to discuss his intentions until they had become facts.

There is therefore probably some truth in the press statements that the gendarmerie is to be re-organized into three territorial divisions, in accordance with a proposal submitted in 1929 by Lieut.-General de Longueville, then Inspector-General of Gendarmerie and General Bayart, then commanding the gendarmerie.

### NOTES ON MILITARY REVIEWS.

“BULLETIN BELGE DES SCIENCES MILITAIRES.”

January, 1930.

Published by Impr. Typo. de l'Institut Cartographique Militaire,  
Brussels.

Price, 1.50 Belga.

1. *Operations of the Belgium Army in 1914—18. (Continued.) Stabilization. The Belgium Army on the Nieuport—Furnes—Boesinghe Canal. Period 1st January to 7th July, 1917. General Situation. Disposition. Plans for the Nivelles offensive. Raids.*

At an Allied conference in November, 1916, plans were worked out for a general offensive to begin in February, 1917. Joffre was replaced by Nivelle (16th December, 1916), and the offensive was postponed till April. In the meantime, the Germans withdrew to the Hindenburg line.

The British attacked in Artois, from 9th April to 4th May (Battle of Arras), with important tactical gains but no decisive results.

The failure of the Nivelles offensive on 16th April, caused severe depression in France and led to Nivelle's supersession as Commander-in-Chief of the French Armies by Petain (7th May, 1917).

The Italian offensive in May, after a substantial initial success on the Isonzo, dwindled into a series of minor operations.

The Russian Revolution prevented any further help on the Eastern front, but this was counterbalanced by the entry of the United States of America into the war (April, 1917). Pages 1—3.

The Belgian, and corresponding German dispositions in the first half of 1917, and the plans which had been made by the Belgians for co-operation in the general advance, should the Nivelle offensive succeed, are described. Pages 3—14.

In the circumstances, the Belgian activities were limited to raids. Two successful raids are described, 25th and 29th March, and two German raids, 7th February (unsuccessful) and 1st July (very successful).

As a result of this raid, the Belgian General Headquarters decided to change the method of holding advanced posts and thenceforth to use mutually supporting centres of resistance, each commanded by an officer, instead of numerous small posts.

## 2. *Infantry Chronicle.* The employment of machine guns.

The first of a series of articles in which the discussion of infantry problems in foreign military writings will be commented on from the point of view of the Belgian doctrine.

An article in the *Military Wochenblatt* of 18th April, 1929, is discussed and German machine-gun training is quoted to demonstrate—

- (1.) That machine-gun fire in support of infantry, or in reinforcement of rifle fire, must be direct fire at all ranges less than 1,600 yards.
- (2.) That indirect and overhead machine-gun fire may only be carried out at ranges exceedingly 1,600 yards.

The problems in the siting of machine-guns which are raised by this doctrine will be considered in the February issue.

## 3. *A Day on the Defensive.* Of interest for barrack-room instruction.

The following questions set in the November issue are answered:—

28. (P. 399.) Installation of a message-dropping station.
29. (P. 409.) Action of No. 2 of a Light automatic when No. 1 is wounded.
30. (P. 412.) Neutralization of an enemy machine-gun.
31. (P. 493.) Action of non-commissioned officer when his officer is wounded.
32. (P. 495.) Action of linesmen sent to repair broken telephone cable.

and the following are set :—

33. (P. 33.) Transmission of urgent tactical information by an air observer to Divisional Headquarters.

34. (P. 34.) Improvisation of a ramp for detraining tanks.

35. (P. 40.) Action of a soldier when charged by five of the enemy from a distance of 100 yards.

36. (P. 44.) Action of No. 1 of a trench mortar on receiving a message by runner that the assault is imminent ; runner is killed as he begins to deliver orders.

37. (P. 46.) Action of non-commissioned officer whose men, in a dug-out, are overcome by a gas which seems not to have penetrated their respirators.

4. *The Attack of Ground Objectives by the German Battle Aircraft.* Of historical interest.

A short historical description of the development of low-flying attacks in the German air service. The author concludes that such attacks can have but little effect, other than moral, on ground troops.

5. *Models of Barrack-Room Instruction.* Of interest.

A long article describing in detail a complete set of reduced scale models for use in a battalion for the instruction of recruits in all branches of their work.

Chapter II, pages 72-74, describes a particularly useful model for instruction in trajectory and sighting.

“ BULLETIN BELGE DES SCIENCES MILITAIRES.”

February, 1930.

Published by Impr. Typo. de l'Institut Cartographique Militaire,  
Brussels.

Price, 1·50 Belga.

1. *Questions of the Belgian Army in 1914-1918. (Continued.) Stabilization. The Belgian Army in the Nieuport—Furnes—Labiethhoek Canal, period 7th July—13th November, 1917. General situation. The 2nd Battle of Flanders. Belgian plans for participation.*

During this period the French obtained two successes, one at Verdun and one at Malmaison, which forced the German to evacuate the Chemin des Dames.

On the Eastern front, a series of disasters led to the Bolshevik revolution and Russia's withdrawal from the war.

The Italians were routed at Caporetto, and the situation was saved only by the hurried dispatch of French and British reinforcements, thanks to which a line was stabilized on the Piave. This setback led to the Rapallo Conference, at which the basis was laid for an Inter-Allied Supreme War Council. Pages 93—95.

### *The 2nd Battle of Flanders.*

This battle was held at the instance of the British High Command, to ease the situation in the Ypres salient and to force the Belgian coast line. After Inter-Allied discussions, in the course of which the French tried to make the King of the Belgians accept a French Chief of Staff, it was decided that one French, one Belgian and three British Armies should take part in the operations.

The Belgian Army was not to undertake active operations until Houthulst Wood had been captured. This stage was not carried out owing to the general situation, Pages 95—98.

The remainder of the article describes, in detail, the preliminary negotiations for the participation of the Belgian Army, pages 98-105, and the preparations made by this army, pages 106—108.

### *2. Infantry Chronicle II.*

This article deals with the employment of machine-guns in the attack.

It criticises the procedure, advocated in German manuals, of leaving corridors between, or in the midst of, units of the advancing infantry, through which stationary machine-guns will give their support, and endeavours to show that this is impracticable.

It contends that the machine-guns at present in use in the Belgian Army do not possess sufficient mobility to advance with the leading infantry and that, therefore, the only possible method is that laid down in the Belgian text books:—

A liberal allotment of machine-guns should be made to the front line companies, to be sited before the commencement of the attack, and the remaining machine-guns should be allotted to the support companies, to come into action with them when occasion arises.

3. *The fire of the close support group.*

The information which the infantry's demands for fire must contain is clearly laid down. Stress is laid on the difference between response by the artillery in the attack, when the artillery must take sufficient time to make its fire really accurate (10-15 minutes for a group concentration), and response in the defence, when the artillery must be prepared to fire instantaneously and accurately on any given point within range. Detailed examples are given.

4. *A day on the defensive.*

Solution is given of problems (33) Transmission of urgent tactical information by an air observer to Divisional Headquarters, and (34) Improvisation of a ramp for detraining tanks.

An air combat is described, and the detraining and march of a tank battalion to its position of assembly.

Questions (38) Air fight, and (39), Interview between tank commander and infantry commander, are set.

5. *An incident in the defence of Liege.*

Of historical interest.

Describes the entry into Liege on 6th August, 1914, of a company of the 7th *Jager* Battalion, which unexpectedly appeared outside General Leman's Headquarters, cheered by the population, who took the *Jagers* for British troops.

## BOLIVIA.

### BOUNDARY DISPUTE WITH PARAGUAY.

A skirmish has again occurred in the Chaco between Bolivian and Paraguayan troops, in the neighbourhood of Fort Boqueron. As usual, each party holds the other responsible. Although apparently there was only one casualty on each side, the situation has been aggravated by the alleged interception by Paraguay of a wireless message ordering the 4th and 5th Divisions of the Bolivian Army to call up volunteer reservists and to prepare for a general offensive.

Since then, however, a further message countermanding these moves is said to have been intercepted. Both countries have protested to the League of Nations.

It would appear, therefore, that the work of the Commission of Investigation and Conciliation, set up last year by the Pan-American Arbitration Conference to settle the incidents which occurred in December, 1928, has had little effect, although both countries agreed

to its recommendations. The situation is distinctly critical, in spite of the many powerful influences at work to prevent war, and in spite of the fact that both countries have signed the Kellogg Pact. The chief danger lies in the excitable temperament of the people of Bolivia which might at any moment result in some precipitate act of aggression committed against the better judgment of her rulers.

The boundary question still remains unsettled, although the Commission of Investigation and Conciliation has made further proposals to the Bolivian Government in this respect, to which so far she has not replied. Previously she had declared that she preferred to arrange this matter direct with Paraguay. The crux of the dispute is the question of the possession of the port of Bahia Negra, on the Paraguay River, which Paraguay on the one hand has categorically refused to give up, and which Bolivia on her part demands as an outlet to the Atlantic.

An additional complication in the present troubled state of affairs is to be found in the periodical quarrels between both countries and the Lengua Indians who inhabit portions of the disputed territory. Raids, and abduction of Indian girls, are carried out by both Bolivia and Paraguayan soldiery, resulting in loss of life and military equipment, for the Indians defend themselves against these incursions. The last fracas between Paraguay and the Indians has been amicably settled; but the latter are said to be most hostile at present to the Bolivians, who have not yet made amends for their latest raid.

#### CZECHOSLOVAKIA.

##### DISCUSSION ON THE 1930 ARMY ESTIMATES.

The following notes summarize the more important speeches that have recently been made in Parliament:—

On 22nd January Dr. Vysokvsky, Minister of National Defence, explained why it has not been possible to carry into effect the law of 1920 which limited military service, from 1926 onwards, to 14 months. His first point was that in 1926 no other nation had made any effort to reduce military service to as low a level as 14 months. The Minister's next point was that there are not a sufficient number of long service non-commissioned officers, and that he himself favoured the idea of creating a corps of assistant-instructors, who in case of war would remain at depôts and camps to train recruits and reservists. He proceeded to state that, if military service was to be reduced, units must be relieved of all duties

unconnected with military training. This would necessitate the creation of a corps of civil watchmen and artificers, which in turn must entail increased expenditure. Further, the pre-military training of youths would have to be carried out more intensively than at present, in order to obviate the need to devote any portion of the 14 months to physical training. Dr. Vyskovsky's conclusion was that a reduction of the period of service would almost certainly lead to increased expenditure.

# FRANCE.

## CONSEIL SUPERIEUR DE LA GUERRE.

The *Conseil Supérieur de la Guerre*, during 1930, will be composed of the following :—

### Marshals—

Joffre.  
Petain (Vice-President).  
Lyautey.  
Franchet D'Esperey.

### Generals—

Gouraud.  
Guillaumat.  
Debeney.  
Nollet (until 28th January, 1930).  
Targe (until 2nd August, 1930).  
Niessel.  
Degoutte.  
Weygand.  
Philipot (until 23rd November, 1930).  
Brecard.  
Claudiel.  
Maurin.  
Jacquemot.

## APPOINTMENT OF GENERAL WEYGAND AS CHIEF OF THE GENERAL STAFF.

On 2nd January, a *decree* was signed appointing General Weygand *Chef d'Etat-Major General* to succeed General Debeney, who is resigning his appointment at his own request.

Marshal Petain will continue to act as Vice-President of the *Conseil Supérieur de la Guerre* during 1930, and General Debeney will remain a member of this body.



## JAPAN.

## THE GENERAL ELECTION.

Mr. Hamaguchi, the Prime Minister of Japan, on 21st January after outlining his Cabinet's policy, dissolved the Diet and ordered a General Election. A month later, on 20th February, the second General Election to be held in Japan under manhood suffrage took place. The result was a victory for the Minseito (Liberals), which was returned to power with a majority of 80 over all other parties.

During its former period of office it will be recalled that the Minseito was in power as a minority party. As the result of this unsatisfactory state of affairs the leaders of the party decided to dissolve Parliament, and go to the country at a time when their main opponents, the Seiyukai (Conservatives), were unpopular. The Seiyukai lost over 60 seats, and Labour was practically eliminated.

The figures for the present Diet are :—

				Seats.
Minseito	..	..	..	273
Seiyukai	..	..	..	174
Proletarians (Labour)	..	..	..	5
Independents	..	..	..	5
Other parties	..	..	..	9
				<hr/> 466 <hr/>

It is understood that Baron Shidehara, General Ugaki and Admiral Takarabe retain their portfolios at the Ministries of Foreign Affairs, War, and Marine respectively.

## MOROCCO.

## FRENCH ZONE.

*Unified command on the Algerian-Moroccan frontiers.*

During the conference held last year between the Governor-General of Algeria and the Resident-General in Morocco, it was agreed that the only way to deal effectively with the sporadic outbreaks on the Algerian-Moroccan boundary, was to establish close liaison between the military forces of the two districts. Notwithstanding this liaison, incidents—such as that at Ait-Yacoub—continued

to occur, and it has now been decided to institute a unified command in the area in question. This command will come under the Resident-General at Rabat and will include the districts of Colomb-Bechar and the Saoura. The commander will have at his disposal a certain number of troops, armoured cars, reconnaissance and bombing aviation squadrons, which will be drawn partly from Morocco, partly from Algeria. The strength of the forces has not yet been made public.

Colonel H. H. Giraud, late instructor at the *Ecole de Guerre*, has been appointed to the new command.

#### SPANISH ZONE.

##### *Public and military works.*

The Budget for 1930 contains a Vote for 7,633,333 pesetas for Public Works in Morocco. Expenditure has now been authorized as follows, the contracts in each case to be submitted for the approval of the Minister of the Army :—

			Pesetas.
Roads	..	..	.. 3,400,000
<i>Piste</i>	..	..	.. 600,000
Camps	..	..	.. 500,000
Quarters	..	..	.. 520,000
Barracks	..	..	.. 864,000
Residencies	..	..	.. 310,000
Parks and depôts		..	.. 463,333
Hospitals	..	..	.. 340,000
Water works	..	..	.. 136,000
New telegraph lines		..	.. 500,000
Total			.. 7,633,333

At the normal rate of exchange this total represents £305,000. At the present low rate it represents £109,000 and shows an increase of £90,000 over 1929.

#### SPAIN.

##### SPANISH ARTILLERY.

##### *Measures by new Government.*

##### 1. *Reinstatement of officers.*

On the occasion of the anniversary of the death of the Queen Mother a Royal Decree appeared in the *Gaceta* of the 6th February

authorizing the reinstatement of all those officers of the artillery, who were prevented from rejoining their corps, by the summary measures of the Dictatorship in 1929.

The *decree* further states that these officers will be reinstated in their former rank and seniority. They will, however, remain temporarily on the supernumerary list (*Excedento forzoso*) until they can be absorbed into appointments, or on the active list.

Their new status is also to be without prejudice to any former action taken against them by the Ministry of the Army.

#### 2. *Reinstatement of cadets of the Artillery Academy.*

In the same *decree* referred to in the above paragraph, authorization is given to all cadets of the academy at Segovia to re-enter the college. This includes all those cadets, including the ringleaders, who were summarily dismissed by the late Government from the 1st December, 1928, onwards.

#### 3. *New Director of Artillery Academy.*

A new Director of the Academy at Segovia has been appointed, Colonel M. de Salas Bruguera.

#### 4. *Refund of pay and allowances.*

The same Royal *Decree*, to which reference has been made above, authorized those concerned to apply for the pay and allowances of which they were deprived during their periods of enforced retirement.

#### DIRECTOR OF TRAINING.

Major-General Don Manuel Goded Llopis, Military Governor of Cadiz, has been appointed Director of Training and Administration in the Army Ministry, in place of General Losada.

This is one of the first appointments submitted for Royal approval by the new Prime Minister.

Formerly, during the occasional absence of the Minister of the Army, the Director of Training and Administration has invariably acted as his deputy.

General Goded is 48 years of age and is fifteenth in the list of major-generals. He saw considerable service in Morocco for which he received accelerated promotion and several decorations.

SYRIA.

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## SYRO—TURKISH BOUNDARY COMMISSION.

The last boundary mark was planted at Jisr Ibn Omar on Friday, 13th December. This completed the delimitation of the boundary line on land. All that now remains is to determine the *thalveg* down the Tigris from Jisr Ibn Omar to the point where the Khabour debouches into the Tigris. General Ernst declares that the members of the boundary commission, as constituted, are not competent to carry out this work and he has, therefore, requested that naval officers should be appointed by the French and Turkish authorities respectively. The French have appointed *Capitaine de Corvette* Robert and *Enseigne de Vaisseau* Fournier, who got their orders and were prepared to leave Beyrouth a fortnight ago. The Turks have so far failed to appoint anyone. Meanwhile the Commission, with General Ernst, has returned to Aleppo.

THE REGIMENTAL HISTORY OF THE 3RD Q. A. O. GURKHA  
RIFLES.

EDITED BY

MAJOR-GENERAL NIGEL G. WOODYATT, COLONEL, 7TH GURKHA  
RIFLES.*(Messrs. Phillip Allan & Co., Ltd., London, 1929) 30s. nett.*

The 3rd Q. A. O. Gurkha Rifles has been fortunate in finding so competent a historian in a former officer of the regiment. General Woodyatt set himself no easy task, but his intimate knowledge of the regiment in particular, and of Gurkhas in general, has enabled him to accomplish his labour of love with distinction.

He has followed the progress of the regiment from the formation of the 1st Battalion in 1815 as "The Kumaon Battalion" to 1927.

His only digressions from the history proper, are two chapters containing a very brief resumé of the kingdom of Nepal, and of the Nepal wars. Since the enlistment of Gurkhas in the Indian Army was the direct result of the latter—the Kumaon Battalion being largely recruited on its formation from Gurkhas who had fought against us—the inclusion of a chapter devoted to those wars was obviously desirable.

Up to 1850, when it became a general service unit, the battalion was employed on police duties.

The 2nd Battalion started life in 1887 with a nucleus of Garhwali soldiers from every existing Gurkha unit. In December 1890, however, this battalion was reorganised, and its two companies of Gurkhas were handed over to a new battalion to be raised to the 3rd Gurkhas. The former unit was designated the "39th (The Garhwali) Regiment of Bengal Infantry. The present 2nd Battalion, therefore, dates from 1891.

Prior to the commencement of the Great War, all the opportunities for active service fell to the 1st Battalion. This battalion took part in the Mutiny, the Bhutan wars, the second Afghan war, the third Burmese war, and the Tirah campaign of 1897. General Woodyatt justly claims that a march of 500 miles, carried out by the 1st Battalion in the middle of the hot weather during the Mutiny, is worthy to rank with the better known feat performed about the same time by the Corps of Guides.

The original intention was to quarter the two battalions together, but as a result of a serious epidemic of cholera at Almora, the 2nd Battalion was sent to Landsdowne, where it arrived on New Year's Day, 1893. Both battalions constructed their own barracks at their respective stations. The "Charter," given to the four old Gurkha Regiments, is quoted in the text. Lord Kitchener, when first shown this document remarked :—"What nonsense ! they had no business to bind posterity." To-day few will be found to disagree with his verdict.

The regiment was represented by four battalions in the Great War.

The 2nd Battalion proceeded with the Meerut Division to France, and fought with distinction at the battles of Neuve Chapelle and Aubers Ridge in 1915. The total casualties suffered by the battalion in one year on the Western Front were 836. The battalion departed from France at the end of 1915 and proceeded direct to the Suez Canal Zone. It remained in that area till the 25th of June 1917, when it joined the 75th Division in Palestine. The 3rd Battalion, which was formed in Egypt on the 3rd of February 1917, likewise joined the 75th Division. Both battalions played a prominent part in the subsequent fighting in Palestine. The 3rd Battalion was disbanded in India in 1920. The 4th Battalion was raised in India on the 1st of October 1916 and saw active service in the third Afghan war and in the Waziristan campaign of 1920 and subsequent years. It was disbanded on the 16th of March 1922.

The 1st Battalion remained in India till the end of 1917, during which period it had the uncongenial task of supplying drafts for the battalions overseas. This battalion then proceeded to Mesopotamia, where it took part in the final operations on the upper Tigris, and in the Arab Rebellion of 1920. It returned to India in 1921.

During the Great War two riflemen of the 2nd Battalion were awarded the Victoria Cross—a unique record so far as Gurkha Regiments are concerned.

One statement in this volume:—"Although the Great War was won in shorts" calls for some comment. Even the most ardent protagonist of this article of clothing must admit that this is an overstatement of the case for its retention. The portion dealing with the Great War contains a graphic description of the sinking of the S. S. Persia, in which two officers of the regiment lost their lives, and one officer

had a miraculous escape. Interesting anecdotes, which include well known personalities like Lord Kitchener and Sir Henry Ramsay, are recorded in a lively style. The maps are not of a particularly high standard. It is a pity that they are not placed at the end of the portions of the volume to which they refer, and do not fold out clear of the text. The illustrations are of regimental interest, and the volume contains a comprehensive index and valuable appendices.

General Woodyatt is to be congratulated on having produced a most fascinating and clearly written history of this distinguished regiment.

HISTORICAL RECORDS OF THE 20TH (DUKE OF CAMBRIDGE'S OWN) INFANTRY, BROWNLOW'S PUNJABIS. VOL. II, 1909—1922.

*(Printed for Private Circulation).*

The anonymous author of this Record is to be congratulated. He has steered a clever course between the equal dangers of a bald catalogue of facts and figures, and a chatty story of a unit's services. The result is a volume excellently got up, full of interest, and very readable even to the mere outsider. To those connected with the battalion, past, present, and future, it will prove a dignified and sympathetic account of the work of the 20th during that strenuous period which included the Great War.

The book is well illustrated, and clear maps make descriptions of actions easy to follow. Finally, there is a wealth of all manner of data contained in the Appendices which the future British Officer of the 2nd Battalion, 14th Punjab Regiment will find of great value as a work of reference.

During the period covered by the history the battalion was on service in Mesopotamia from 1914 to 1917, in Palestine, Syria, and Egypt from 1917 to 1920, and in the Lower Zhob (no health resort this) for another six months in 1921—a full war record with little rest. Losses in action amounted to eight British Officers, three Indian Officers, and one hundred and forty three men killed, apart from wounded.

The author treats the unfortunate story of the Trans-Frontier classes very courageously, endeavouring neither to gloss over their treachery, nor to make any excuse for their action. That the battalion remained on service in spite of the faithlessness of the Pathans is a very high tribute to the remaining classes enlisted, and to the

British Officers who led them. One cannot but feel that the treatment the battalion received might have been more sympathetic, and that, had it been so, its history would have been a much happier one. But as it was its war record is a proud one. It left India in 1914 with traditions and a reputation second to none. It returned in 1920 having successfully lived down a very painful experience, and having rehabilitated itself in the esteem of the Army.

To the student of war the conduct of the battalion in one action is specially commended. It is a striking example of Fire and Movement,—Fire by the Artillery, Movement by the Infantry. It took place near Kut on the evening of 28th September 1915, the battalion having then been marching and fighting continuously for sixteen hours. The Turks took up a defensive position in a dry canal and opened heavy rifle fire supported by four field guns. These were silenced by our artillery and the 20th were launched straight at the Turks whose position was about a mile and a half distant. “The men went forward with great dash—without halting or firing a shot they went straight for the Turks with the bayonet. The Turks could not face it and their retreat rapidly became a rout. The battalion captured four field guns, two machine guns, a large amount of ammunition, some prisoners and the enemy’s main position.”







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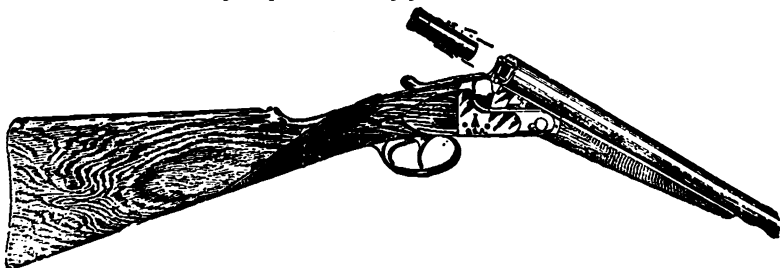
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**THE UNITED SERVICE INSTITUTION  
OF INDIA, SIMLA.**

---

***Statement of accounts for the year ended  
31st December 1929.***

---



## THE UNITED SERVICE

Balance Sheet as at

Rs. a. p.      Rs. a. p.

## CAPITAL.

As at 1st January 1929	..	..	..	59,792	0	4	
Add—Excess of Income over Expenditure during the year ended 31st December 1929	..	..	..	1,155	5	7	60,947 5 11

## LIABILITIES.

Electricity	..	..	..	46	10	0	
Audit Fee	..	..	..	250	0	0	
Journal Printing	..	..	..	1,518	11	0	
Journal Postage	..	..	..	327	5	0	
							2,142 10 0
Members and Subscribers at credit	..	..	..				3,094 11 0

Carried over .. 66,184 10 11

## INSTITUTION OF INDIA, SIMLA.

31st December 1929.

			Rs.	a.	p.	Rs.	a.	p.
<b>BUILDING.</b>								
As at 1st January 1929	..	..	20,294	2	6			
Less—Depreciation at 1½%	..	..	304	0	0			
						19,990	2	6
<b>LIBRARY BOOKS.</b>								
As at 1st January 1929	..	..	10,205	4	5			
Add—Purchases during the year	..	..	1,760	6	2			
			11,965	10	7			
Less—Depreciation at 5% on opening balance	..	510 0 0						
50% on purchases	..	880 0 0	1,390	0	0	10,575	10	7
<b>FURNITURE AND FITTINGS.</b>								
As at 1st January 1929	..	..	2,940	2	0			
Less—Depreciation at 6%	..	..	176	0	0	2,764	2	0
<b>PICTURES AND SCULPTURES.</b>								
As at 1st January 1929	..	..	3,355	13	0			
Add—Purchases during the year	..	..	64	8	0			
			3,420	5	0			
Less—Depreciation at 3%	..	..	103	0	0	3,317	5	0
<b>MEDALS AND TROPHIES.</b>								
As at 1st January 1929	..	..	3,165	1	3			
Less—Depreciation on trophies—								
Rs. 1,245 15 3 at 1%	..	..	12	6	0	3,152	11	3
<b>SUNDRY DEBTORS.</b>								
Members and Subscribers	..	..				718	15	0
<b>INVESTMENTS.</b>								
4% Bombay Port Trust Debentures—Face Value								
Rs. 3,000 at 90	..	..	2,700	0	0			
6% United Provinces Bonds—Face Value Rs. 3,000								
at 93	..	..	2,790	0	0			
Post Office Cash Certificates at cost—Face Value								
Rs. 10,000	..	..	7,954	8	0			
Fixed Deposit with Lloyd's Bank Ltd., Simla	..	..	4,000	0	0			
			17,444	8	0			
Interest accrued on above	..	..	185	13	4	17,630	5	4
Deposit with Secretary, Army Head Quarters Library for books	..	..				130	13	9
Balance due from Alliance Bank of Simla Ltd., in liquidation	..	..				312	2	0
Carried over	..	..				58,592	3	5

## THE UNITED SERVICE

*Balance Sheet as at*

	Rs.	a.	p.	Rs.	a.	p.
Brought forward ..				66,184	10	11

Total ..				<u>66,184</u>	<u>10</u>	<u>11</u>
----------	--	--	--	---------------	-----------	-----------



## THE UNITED SERVICE

*Revenue Account for the*

To—			Rs. a. p.	Rs. a. p.
Establishment .. ..	..	..	8,171 1 0	
Contingencies .. ..	..	..	513 8 6	
Stationery and printing ..	..	..	429 1 3	
Insurance, rates and taxes ..	..	..	821 14 0	
Electricity .. ..	..	..	170 5 0	
Postage and telegrams ..	..	..	501 0 0	
Exchange and bank charges ..	..	..	53 1 0	
Repairs to building .. ..	..	..	127 15 0	
Audit fee .. ..	..	..	250 0 0	
			<hr/>	11,037 13 9
Prize competition .. ..	..	..	52 12 0	
Lectures .. ..	..	..	119 10 0	
			<hr/>	172 6 0
U. S. I. Journal expenses—				
Printing .. ..	..	..	8,552 10 0	
Premia .. ..	..	..	2,509 8 0	
Postage .. ..	..	..	1,741 12 0	
			<hr/>	12,803 14 0
Arrears of subscriptions written off ..	..	..		605 3 0
Depreciation—				
Building .. ..	..	..	304 0 0	
Library books .. ..	..	..	1,390 0 0	
Furniture and fittings ..	..	..	176 0 0	
Pictures and sculptures ..	..	..	103 0 0	
Medals and trophies .. ..	..	..	12 6 0	
			<hr/>	1,985 6 0
Surplus—				
Excess of Income over Expenditure ..	..	..		1,155 5 7
			<hr/>	
			Total ..	27,760 0 4
				<hr/>

## INSTITUTION OF INDIA, SIMLA

*year ended 31st December 1929.*

By—

			Rs.	a.	p.	Rs.	a.	p.
Government grant	..	..	..			9,000	0	0
Members and subscriptions	..	..	..			15,045	0	0
Arrears previously written off and now recovered			..			5	0	0
Entrance fees	..	..	..	717	0	0		
Life subscriptions	..	..	..	120	0	0		
						837	0	0
Credit balances written off	..	..	..			247	6	0
Tactical schemes	..	..	..	1,010	10	0		
Army Lists	..	..	..	43	0	0		
						1,053	10	0
Sale of journals	..	..	..	202	12	0		
Advertisements in Journal	..	..	..	652	2	0		
						854	14	4
Interest on investments	..	..	..			527	2	0
Sale of periodicals	..	..	..			117	0	0
Sale of catalogues	..	..	..			73	0	0
Total						27,760	0	4

Examined and found correct.

SIMLA :  
25th March, 1930.P. N. S. AIYAR & Co.,  
Government Diplomaed Accountants, Auditors.



## THE UNITED SERVICE

MACGREGOR

*Cash Account for the year*

To—	Rs. a. p.	Rs. a. p.
Balance on 1st January 1929 with Lloyd's Bank, Ltd., Simla .. .. .		576 11 2
Dividends from Alliance Bank of Simla, Ltd., in liquidation ..		49 12 0
Interest on investments realised .. .. .		218 8 0
		<hr/>
Total ..		844 15 2
		<hr/>

*Balance Sheet as at**Balance of Fund—*

As at 1st January 1929 .. .. .	4,447 13 2
Add—Excess of Income over Expenditure ..	65 8 0
	<hr/>
Total ..	4,513 5 2
	<hr/>

## INSTITUTION OF INDIA, SIMLA

## MEMORIAL FUND.

*ended 31st December 1929.*

				Rs.	a.	p.
By Gratuity	..	..	..	100	4	0
Medals	..	..	..	52	12	0
Balance on hand with Lloyd's Bank, Ltd., Simla	..			691	15	2
				<hr/>		
Total	..			844	15	2
				<hr/>		

*31st December 1929.**Investment—*

Government Promissory Notes $3\frac{1}{2}\%$ Face Value Rs. 6,300 at 53/1	..	..	..	3,658	0	0
Balance with Alliance Bank of Simla, Ltd., in liquidation	..	..	..	163	6	0
Balance with Lloyd's Bank, Ltd., Simla	..			691	15	2
				<hr/>		
Total	..			4,513	5	2
				<hr/>		

Examined and found correct.

SIMLA :

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Some idea of the magnitude of the task of budgeting for a family of 8,000 children may be gained from the fact that if only an additional penny per child per day had to be spent, the food Bill would be increased by £33-6-8 per day, or £233-6-8 per week, or for a year over £12,000.

Dr. Barnardo's Homes are making their Annual Appeal for 400,000 Half-Crowns as Birthday gifts in memory of the Founder, the late Dr. Barnardo, to provide food for their great family of boys and girls and babies during the lean season of the year.

Last year 490,984 Half-Crowns were sent in by 74,534 generous friends all over the world, and the Homes are renewing their appeal this year in the hope that all lovers of little children will send as many or even more Half-Crowns, for the children must have bread, and some butter !

Cheques, &c., may be made payable to "Dr. Barnardo's Homes Food Fund" and crossed "Barclays Bank, Ltd., a/c Dr. Barnardo's Homes" and addressed to Dr. Barnardo's Homes, 18 to 26, Stepney Causeway, London, E. 1, England.



# **MILITARY WIDOWS' FUND,**

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**THIS FUND** enables a British Service (Army) officer, by subscribing from Rs. 6 to Rs. 10 per quarter, to assure, in the event of his death while on the Indian Establishment, immediate payment :—

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For each child	„ 750	„ „ 1,125

Payments are made immediately on receipt of report of death, irrespective of death occurring in or out of India.

The sum paid to the widow varies with subscription and the sum for each child varies with age of child. Subscriptions are based on the rank of the officer.

Benefits are payable whether the deceased officer's family is residing in India or not.

It is to the advantage of an officer to join the Fund on his first tour of service in India, as otherwise, on joining it in a subsequent tour he would have to pay subscriptions for any previous tours in the country as a married officer, but not in excess of 4 years.

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The Fund is controlled by a Committee consisting of and elected by subscribing officers serving at Army Headquarters, Simla.

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The Secretary,  
**MILITARY WIDOWS' FUND,**  
Army Headquarters, Simla.

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- |  |  |
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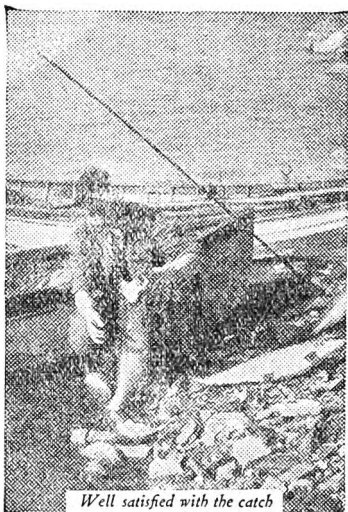
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| 3. Brigadier H. F. E. MacMahon, C.B.E., M.C., A.D.C.                       | 6. Colonel L. P. Collins, D.S.O., C.B.E.                |
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- |   |  |
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**United Service Institution of India.**

**OCTOBER 1930.**

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## SALE OF PERIODICALS.

This Institution offers the following periodicals to members on sale for twelve months—1st January to 31st December 1931. The papers will be sold to the members submitting the highest bids by the 31st January 1931. Each issue of the periodicals will be sent to the purchaser as soon as the next issue arrives in Simla. In the case of purchasers in Simla, delivery will be free, otherwise postage will be charged.

Title.	Published.	Cost per copy new.	
		s.	d.
1. The Review of Reviews	.. Monthly ..	1	0
2. The Empire Review	.. " ..	2	0
3. The Nineteenth Century and After	.. " ..	3	0
4. The Geographical Journal	.. " ..	2	0
5. The United Empire	.. " ..	1	0
6. Blackwood's Magazine	.. " ..	2	6
7. The Journal of the R. A. M. C.	.. " ..	2	0
8. The Navy	.. " ..	0	6
9. The British Trade Journal and Export World	.. " ..	1	0
10. The Cavalry Journal	.. Quarterly ..	5	0
11. The Asiatic Review	.. " ..	5	0
12. The Royal Engineer's Journal	.. " ..	5	0
13. The British Empire Review	.. " ..	0	6
14. The Fighting Forces	.. " ..	5	0
15. The Journal of the Royal Artillery	.. " ..	5	0
16. Journal of the Society for Army Historical Research	.. " ..	6	0

### American Publications.

		Cents.
1. The Canadian Defence Quarterly	.. Monthly ..	50
2. The National Geographic Magazine	.. " ..	50
3. The Coast Artillery Journal	.. " ..	50
4. The Infantry Journal	.. " ..	50
5. The Journal of the Franklin Institute	.. " ..	60
6. The Cavalry Journal	.. Quarterly ..	75
7. Foreign Affairs	.. " ..	1.25
8. The Army and Navy Journal	.. Weekly ..	20

### Foreign Publications.

1. Revue Militaire Suisse	.. Monthly
2. Bulletin Belge des Sciences Militaires	.. "
3. Rivista Di Artiglieria E Genio	.. "
4. Rivista Militaire Italiana	.. "
5. L'Afrique Francaise	.. "

### Illustrated Publications.

1. The Times Weekly Illustrated	.. Weekly ..	4d.
2. The Aeroplane	.. " ..	6d.
3. The Tatler	.. " ..	Re. 1
4. The Sketch	.. " ..	" 1
5. The Bystander	.. " ..	" 1
6. The Illustrated Sporting and Dramatic News	.. " ..	" 1
7. Britannia and Eve	.. Monthly ..	" 1
8. India Monthly Magazine	.. " ..	" 1
9. Tennis and Sport Illustrated	.. " ..	Ans. 8
10. The London Daily Times (6 copies weekly)	.. " ..	2d.

**I.—New Members.**

The following new members joined the Institution from 1st June to 31st August 1930:—

**LIFE MEMBER.**

Captain W. V. Clark.

**ORDINARY MEMBERS.**

T. G. Russell, Esq.

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P. E. Barker, Esq.

Revd. Canon H. G. England.

C. P. Colvin, Esq., O.B.E.

N. H. Swinstead, Esq., M.B.E.

Major-General J. E. S. Brind, C.B., C.M.G., D.S.O.

Brigadier I. M. C. Poole, D.S.O.

Brigadier H. Clementi-Smith, D.S.O.

Colonel A. J. G. Bird, D.S.O.

Colonel G. A. Hare.

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Colonel E. H. Lancaster.

Colonel J. G. McConaghy, D.S.O., M.V.O.

Colonel W. E. Schofield, O.B.E.

Lt.-Colonel W. H. G. Baker, D.S.O.

Lt.-Colonel C. H. Egerton, D.S.O., M.C.

Lt.-Colonel H. B. Tucker.

Major H. H. Brown, M.B.

Major G. S. Brunskill, M.C.

Major G. Edward-Collins, M.C.

Major R. Crofton, M.C.

Major E. N. Eveleigh, D.S.O., M.C.

Major G. E. A. Granet, D.S.O., M.C.

Major P. Grey, M.B.E.

Major S. W. Marriott, O.B.E.  
Major H. C. D. Rankin, O.B.E., M.B.  
Major C. J. Weld, M.C.  
Captain G. A. Bain.  
Captain J. B. Bettington, M.C.  
Captain R. G. Breadmore, O.B.E.  
Captain R. A. Briggs.  
Captain D. T. Cowan, M.C.  
Captain C. McI. Delf.  
Captain M. B. Dowse.  
Captain N. Eustace.  
Captain A. M. G. Evans.  
Captain E. D. Eveleigh, M.C.  
Captain N. G. Gane, M.C.  
Captain T. Hudson.  
Captain W. T. Hungerford.  
Captain N. Hurst, M.C.  
Captain F. G. W. Jackson.  
Captain F. E. LeMarchand.  
Captain W. H. H. Lindquist.  
Captain F. MaCallum.  
Captain G. W. McCarthy.  
Captain A. H. MacGuffie.  
Captain E. H. P. Mallinson.  
Captain F. E. Morgan.  
Captain G. M. Pirie.  
Captain R. H. Rohde.  
Captain N. Russell, M.C.  
Captain J. A. Salomons.  
Captain A. E. H. Sayers.  
Captain T. N. Smith.  
Captain C. Southgate, M.C.  
Captain A. F. St. A. Turner.  
Captain C. D. L. Turner.  
Captain C. Wallis.  
Captain W. E. D. Wilkinson.  
Captain F. C. Yeo, M.B.E., M.M.  
Lieut. J. F. Armstrong.  
Lieut. F. Gleeson.  
Lieut. J. A. B. Grylls.

Lieut. G. R. Rowbotham.

Lieut. C. E. V. Sams.

Lieut. F. R. Wetherfield.

Lieut. J. R. P. Williams.

Wing Commander A. Gray, M.C., R.A.F.

Flight-Lieut. E. J. Kingston-McCloughry, D.S.O., D.F.C., R.A.F.

## **II.—Lectures.**

The Institution has been peculiarly fortunate in the lectures that have been delivered to the members this season. The following lectures were given in the Gaiety Theatre, Simla :—

- |   |   |
|---|---|
| (1). The Simon Commission Report<br>(First lecture).      | } By J. M. Dunnett, Esq.,<br>C.I.E., I.C.S., Reforms<br>Commissioner. |
| (2). The Simon Commission Report<br>(Second lecture).     |   |
| (3). Our Past Wars with Afghanistan..                     | By Major-General S. F.<br>Muspratt, C.B., C.S.I.,<br>C.I.E., D.S.O.   |
| (4). Railways and the Salonika Expedi-<br>tionary Force.  | By L. H. Kirkness, Esq.,<br>Principal, Railway Staff<br>College.      |
| (5). Recent Air Operations on the North<br>West Frontier. | By Group Captain H. Le<br>M. Brock, D.S.O., R.A.F.                    |

The attendance at all the lectures was good, while that at Mr. Dunnett's admirable discourses on the Simon Commission Report created a record, as every seat in the theatre was taken at both lectures.

## **III.—The Journal.**

The Institution publishes a Quarterly Journal in the months of January, April, July and October which is issued postage free to members in any part of the world.

Non-members may obtain the Journal at Rs. 2 annas 8 per number, or Rs. 10 per annum post free. Advertisement rates may be had on application to the Secretary.

## **IV.—Contributions to the Journal.**

Members and the public are invited to contribute articles to the Journal of the Institution. Articles may vary in length from three



thousand to ten thousand words. Payment is made at from Rs. 30 to Rs. 100 in accordance with the value and length of the contribution. Payment is made on publication.

Articles submitted for publication must be typed in *duplicate*, on one side of the paper only. Drawings, plans, maps, etc., for reproduction should be in *jet* black. No washes or ribands of colour should on any account be used. If it is absolutely necessary to use colours (and these are only permissible in line work or names) the following will reproduce photographically, *i.e.*, dark red, dark orange, dark green. No other colour should on any account be used.

With reference to Regulations for the Army in India, paragraph 204 and King's Regulations, paragraph 522, action to obtain the sanction of His Excellency the Commander-in-Chief to the publication of any article in the Journal of the United Service Institution of India will be taken by the Executive Committee of the Institution.

Anonymous contributions under a *nom-de-plume* will not be accepted or acknowledged; all contributions must be sent to the Secretary under the name of the writer and the paper will, if accepted, be published under that name unless a wish is expressed for it to be published under a *nom-de-plume*. The Executive Committee will decide whether the wish can be complied with.

The Committee reserve to themselves the right of omitting any matter which they consider objectionable, and do not undertake to authorise the publication of such papers as are accepted in the order in which they may have been received.

Manuscripts of original papers sent for publication in the Journal will not be returned to the contributor unless he expresses a wish to have them back and pays the postage.

Articles are only accepted on these conditions.

Contributors will be supplied with three copies of their paper *gratis*, if published.

#### **V.—Reading Room and Library.**

The United Service Institution of India is situated in the Mall, Simla, and is open all the year round—including Sundays—from 9 A. M. until sunset.

The Reading Room of the Institution is provided with most of the leading illustrated papers, newspapers, magazines, and journals

of military interest that are published. Papers, magazines, "works of reference" or books marked "Not to be Taken Away," or noted as "Confidential" may not be removed from the Reading Room.

There is a well-stocked library in the Institution, from which members can obtain books on loan free, in accordance with the following rules :—

(1). The Library is only open to members and honorary members of the United Service Institution of India. Members are requested to look upon books as not transferable to their friends.

(2). No book shall be taken from the Library without making the necessary entry in the register. Members residing permanently or temporarily in Simla are requested to enter their addresses.

(3). The United Service Institution of India is open all the year round—including Sundays—from 9 A. M. until sunset. Books may be taken out at any time provided Rule 2 is complied with.

(4). A member shall not be allowed, at one time, more than three books or sets of books.

(5). Papers, magazines, "works of reference" or books marked "Not to be Taken Away," or noted as "Confidential" may not be removed.

(6). No particular limit is set as to the number of days for which a member in Simla may keep a book, the Council being desirous of making the library as useful as possible to members ; but if after the expiration of a fortnight from date of issue it is required by any other member it will be re-called.

(7). Applications for books from members at out-stations are dealt with as early as possible, and books are despatched per Registered P. P. They must be returned carefully packed per Registered Parcel Post within one month of date of issue.

(8). If a book is not returned at the end of one month, it must be paid for without the option of return, if so required by the Executive Committee.

(9). Lost and defaced books shall be replaced at the cost of the member to whom they were issued. In the case of lost books which are out of print the value shall be fixed by the Executive Committee, and the amount, when received, spent in the purchase of a new book.

(10). The issue of a book under these rules to any member implies the latter's compliance with the rules, and the willingness to have them enforced, if necessary, against him.

(11). A list of all books presented and purchased, and also a list of books useful to members studying for the Staff College and Promotion Examinations, will be found under Secretary's Notes in the quarterly issue of the U. S. I. Journal.

(12). Members are invited to contribute presents of books, maps and photographs of naval and military interest. These may be addressed to the Secretary, U. S. I. of India, Simla. They will be duly acknowledged.

(13). The catalogue of the Library is completed to 31st March 1934. Price Rs. 3-8-0 or postage paid Rs. 3-14-0. An addendum completed up to 30th September 1927 is available. Price annas 8 *plus* postage annas 4.

## VI.—New Books.

### BOOKS PRESENTED.

- | <i>Title.</i>  | <i>Published.</i> | <i>Author.</i>                     |
|--|-------------------|------------------------------------|
| 1. Price of Victory  | .. 1930           | .. J. D. Strange.                  |
| 2. Personalities and Powers  | .. 1930           | .. Knut Hagberg.                   |
| (Presented by Messrs. John Lane,<br>The Bodley Head, Ltd.,<br>London). |                   |                                    |
| 3. Caste in India  | .. 1930           | .. Emile Senart.                   |
| 4. Oriental Memories   | .. 1930           | .. Friedrich Rosen.                |
| (Presented by Messrs. Methuen<br>& Co., Ltd., London).                 |                   |                                    |
| 5. The Law of Aviation   | .. 1930           | .. G. D. Nokes & H. P.<br>Bridges. |
| (Presented by Messrs. Chapman<br>Hall, Ltd., London).                  |                   |                                    |
| 6. Seventh Heaven  | .. 1930           | .. Nina Murdoch.                   |
| 7. On the Barrier Reef   | .. ..             | .. Elliott Napier.                 |
| 8. We and The Baby   | .. 1930           | .. Hector MacQuarrie.              |
| (Presented by Messrs. Angus &<br>Robertson, Ltd., Sydney).             |                   |                                    |
| 9. Sailors of Fortune  | .. 1930           | .. William McFee.                  |
| 10. The Autocracy of Mr. Parham.                                       | .. 1930           | .. H. G. Wells.                    |
| (Presented by Messrs. William<br>Heinemann, Ltd., London).             |                   |                                    |
| 11. Thoughts of a Soldier  | .. 1930           | .. General Von Seeckt.             |
| (Presented by Messrs. Ernest<br>Benn, Ltd., London).                   |                   |                                    |

## BOOKS PURCHASED.

<i>Title.</i>	<i>Published.</i>	<i>Author.</i>
1. British Government in India 1899—1905, in 2 volumes.	1925 ..	Lord Curzon.
2. Biography of the late Marshal Foch.	1929 ..	Sir George Aston.
3. Open House in Flanders ..	1929 ..	Baroness E. de La Grange.
4. A Subalterns' War ..	1929 ..	Charles Edmonds.
5. Sovereignty of the British Dominions.	1929	A. B. Keith.
6. Captain Scott ..	1929 ..	Stephen Gwynn.
7. Dominion Autonomy in Practice.	1929 ..	A. B. Keith.
8. An Outline History of the Great War.	1929 ..	G. V. Carey and H. S. Scott.
9. The Mediterranean and Its Problems.	1927 ..	E. W. Polson-Newman.
10. Commando—A Journal of the Boer War.	1929 ..	Deneys Reitz.
11. History of the British Army, Vol. XIII.	1930 ..	Sir John Fortescue.
12. The Colonial Service ..	1930 ..	Sir John Bertram.
13. Indian Statutory Commission Report, Survey, Vol. I, Recommendations, Vol. II.	1930	
14. History of the Army Ordnance Services, in 3 volumes.	1930 ..	Maj.-Genl. A. Forbes.
15. The Crusades—Iron Men and Saints.	1930 ..	Harold Lamb.
16. Tactical Schemes from Platoons to Brigades, 3rd edition.	1930 ..	Col. A. Kearsey.
17. How Britain is Governed ..	1930 ..	Ramsay Muir.
18. The Real War 1914—18 ..	1930 ..	B. H. Liddell-Hart.
19. The Cavalry Went Through ..	1930 ..	Bernard Newman.
20. Earl Beatty ..	1930 ..	Geoffrey Rawson.
21. Report on the Progress of Civil Aviation, 1929.	1930 ..	The Air Ministry.

## BOOKS PURCHASED.—(concl'd.)

	<i>Title.</i>	<i>Published.</i>	<i>Author.</i>
22.	War Books—A Critical Guide..	1930 ..	Cyril Falls.
23.	Changing Conditions of Imperial Defence.	1930 ..	Capt. D. H. Cole.
24.	Her Privates We ..	1930 ..	Private 19022.
25.	Famous Batteries of the Royal Artillery.	1930 ..	Ubique.
26.	The Air Annual of the British Empire, Vol. II.	1930 ..	C. G. Burge.
27.	The History of the 5th Royal Gurkha Rifles, 1858—1928.		
28.	The Naval Blockade, 1914—18 .. ..		Louis Guichard.

## VII.—Army Examinations.

(a) *Promotion.*—The following table shows the campaigns on which the military history papers will be set from March 1931, for lieutenants for promotion to captain in sub-head (b) (iii) and for captains for promotion to major in sub-head (d) (iii):—

1	2	3	4	5
Serial No.	Date of examination.	Campaign set for the first time.	Campaign set for the second time.	Campaign set for the last time.
1	March 1931 ..	Marlborough's Campaigns, 1702—09.	..	Battle of Aubers Ridge, Festubert and Loos, 1915.
2	October 1931 ..	Egypt and Palestine, from the outbreak of the war with Germany to June 1917.	Marlborough's Campaigns, 1702—09.	..
3	March 1932 ..	..	Egypt and Palestine, from the outbreak of the war with Germany to June 1917.	Marlborough's Campaigns, 1702—09.
4	October 1932 ..	Shenandoah Valley Campaign (1861—62).	..	Egypt and Palestine, from the outbreak of the war with Germany to June 1917.

(b) *Staff College.*—(See Staff College (Camberley) Regulations, 1930, obtainable from the Central Publication Branch, Calcutta).

The following campaigns have been set for the Staff College Entrance Examination :—

Strategy of—

Napoleon's Campaign of 1796 in Italy.

Waterloo Campaign.

Peninsula Campaign up to and including the Battle of Salamanca.

The strategy and broad tactical lessons of—

The American Civil War.

Russo-Japanese War up to and including the Battle of Liao-Yang.

The Great War in France, Belgium, Mesopotamia, the Dardanelles and Palestine, including a knowledge of the influence on the strategy in these areas of the events in other theatres of the War.

The East Prussian Campaign, 1914.

The strategy and tactics of—

The Palestine Campaign from 9th November 1917, to the end of the War.

The action of the British Expeditionary Force in France and Belgium up to and including the Battle of the Aisne.

\*The 3rd Afghan War, 1919.

#### **VIII.—Books recommended for Staff College and Promotion Examination Students.**

The following list of books available in the Library may be found useful for reference by officers studying for Promotion Examinations or entrance to the Staff College. In addition to those enumerated below there is a large number of books in the Library dealing with Military History, Tactics, Organization, Administration, Military Geography, Languages, etc. Should any member require a book not shown in this list he should apply to the Librarian, when it will, if procurable, be forwarded to him.

(The list of books presented and purchased as shown in the Journal should also be consulted).

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\* (1) Applicable to 1932 and subsequent examinations.

## MILITARY HISTORY.

(Before beginning to read Military History, candidates are advised to study carefully Section 9, Training and Manœuvre Regulations, 1923.)

1.—*The Great War, General History.*

Soldiers and Statesmen (Field-Marshal Sir W. Robertson).

The World Crisis (Winston Churchill).

The Real War (Liddell Hart).

My War Memories (Ludendorff).

General Headquarters, 1914—16, and its Critical Decisions (Falkenhayn).

2.—*The Campaign of the British Army in France and Belgium.*

## A.—OFFICIAL HISTORY OF THE WAR.

Military Operations, France and Belgium, Vols. I to IV.

## B.—OTHER BOOKS.

Forty Days in 1914 (Maurice, new edition).

Ypres, 1914. (An official account) (German General Staff).

Story of the Fourth Army (Montgomery).

The Last Four Months (Maurice).

3.—*The Palestine Campaign.*

## A.—OFFICIAL ACCOUNTS.

A Brief Record of the Advance of the Egyptian Expeditionary Force, 1919.

The Official History of the Great War. Military Operations in Egypt and Palestine, Vol. I, and Maps (Lieut.-General Sir G. MacMunn).

## B.—OTHER BOOKS.

The Revolt in the Desert (T. E. Lawrence).

Outline of the Egyptian and Palestine Campaigns, 1914—18 (Bowman-Manifold).

The Palestine Campaign (Colonel A. P. Wavell).

Army Quarterly—January 1922 (Lieut.-Colonel Wavell and C. T. Atkinson's articles).

Cavalry Journal—October 1921 (Lieut.-Colonel Rex Osborne's article)—July 1923 (Lieut.-Colonel Beston's article).

R. U. S. I. Journal—May 1922 (Colonel-Commandant Weir's article).

U. S. I. Journal—October 1923 (Captain Channer's article).

#### 4.—*The Dardanelles Campaign.*

##### A.—OFFICIAL ACCOUNTS.

Naval and Military Despatches A clear account of the operations in detail from the G. H. Q. standpoint.

Reports of the Dardanelles Commission. Fixes responsibility for the inception and conduct of the campaign. An interesting study in the relationship between Politicians and Naval and Military Experts.

Despatches from the Dardanelles (Ian Hamilton).

Official History of the Great War, Gallipoli, May 1915, Vol. I (C. F. Aspinall Oglander).

##### B.—OTHER BOOKS.

The Dardanelles (Callwell) .. The best unofficial account and criticism of the strategic conduct of the campaign.

#### 5.—*The Mesopotamia Campaign.*

##### A.—OFFICIAL ACCOUNT.

Official History of the Campaign in Mesopotamia, Vols. I to IV, (F. J. Moberly).

##### B.—OTHER BOOKS.

Critical Study of the Campaign in Mesopotamia up to April 1917. (Staff College).

The Campaign in Mesopotamia, 1914—18 (Evans).

A Chapter of Misfortunes.

My Campaign in Mesopotamia (Townshend).

#### 6.—*Waterloo Campaign.*

Wellington and Waterloo (Arthur Griffiths).

Waterloo, the Downfall of the first Napoleon (George Hooper).

Campaign of 1815 (W. H. James).

With Napoleon at Waterloo (E. B. Low).

Waterloo (Ropes).

Campaign of 1815, Ligny: Quatre-Bras: Waterloo (W. O'Connor Morris).



Waterloo Campaign (S. C. Pratt).

Wellington and Waterloo (G. W. Redway).

Wellington Campaigns. Peninsula-Waterloo, 1808—15, also Moore's.

Campaign of Corunna (C. W. Robinson).

7.—*Marlborough's Campaigns.*

History of the British Army, Vol. I (Hon. J. W. Fortescue).

Life of John, Duke of Marlborough, Vols. I and II (Archibald Alison).

The Wars of Marlborough, 1702—09 (Frank Taylor).

John Churchill, Duke of Marlborough, Vols. I and II (Viscount Wolseley).

Marlborough and the Rise of the British Army (C. T. Atkinson).

A Short Life of Marlborough (H. J. & E. A. Edwards).

The Battle of Blenheim (Hilaire Belloc).

8.—*The American Civil War.*

Stonewall Jackson and the American Civil War (G. F. R. Henderson).

History of the Civil War in the United States, 1861—65 (W. B. Wood and J. E. Edmonds).

History of the Campaign of Gen. T. J. (Stonewall) Jackson in the Shenandoah Valley of Virginia (William Allen).

The American Civil War, 1861—64 (John Formby).

History of the American Civil War (J. W. Draper).

Fredericksburg and Chancellorsville (J. E. Gough).

Battles and Leaders of the Civil War (Johnson and Buel).

Robert E. Lee, The Soldier (Maurice).

Sherman (Liddell Hart).

9.—*The East Prussian Campaign.*

Tannenberg—First 30 days in East Prussia (Edmund Ironside).

Out of my Life (Von Hindenburg).

My War Memories (Ludendorff).

10.—*The Russo-Japanese War, 1904, up to and including the Battle of Liao-Yang.*

Lectures on the Strategy of the Russo-Japanese War (Bird).

Questions on the Russo-Japanese War (Brunker).

Official Account: The Russo-Japanese War (Naval and Military), 3 Vols., published by Committee of Imperial Defence.

- Outline of the Russo-Japanese War (Ross).
- A Study of the Russo-Japanese War (Chasseur).
- Outline History of the Russo-Japanese War, 1904, up to the Battle of Liao-Yang, with Questions and Answers (P. W.).
- An Account of the Battle of Liao-Yang (with questions and 10 maps for examination purposes) (Bird).

11.—*Napoleon's Italian Campaign, 1796-97.*

- Napoleon's Campaign in Italy (Burton).
- Encyclopædia Britannica.

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ORGANIZATION AND ADMINISTRATION.

12.—*Organization of the Army since 1868.*

A.—ORGANIZATION OF THE ARMY SINCE 1868.

- History of British Army, by Fortescue, Vols. I to XIII.
- Outline of the Development of British Army, by Major-General Sir W. H. Anderson.

B.—FORCES OF THE EMPIRE.

- The Annual Army Estimates of Effective and Non-Effective Services (H. M. Stationery Office).
- Notes on the Land Forces of the British Dominions, Colonies, Protectorates and Mandated Territories, 1928.
- The Statesman's Year Book, 1930.
- Army List.

C.—FOREIGN ARMIES.

- League of Nations Handbook, Armaments.
- War Office Official Handbooks of Foreign Armies.

13.—*Development and Constitution of the British Empire.*

A.—THE BRITISH EMPIRE.

- Encyclopædia Britannica—(contains much concentrated information).
- The Statesman's Year Book.
- Whitaker's Almanack.
- The Colonial Office List.
- The Government of the British Empire (Jenks, 1923).

The Foundation and Growth of the British Empire (J. A. Williamson, 1918).

The Beginnings of English Overseas Enterprise (Sir C. P. Lucas, 1917).

The Government of England (L. A. Lowell, 1912).

The Expansion of the British Empire (W. H. Woodward, 1927 edition).

The Origin and Growth of the English Colonies and of Their System of Government (H. E. Egerton, 1903).

The English Constitution (Bagehot, 1909).

England in the Seven Years' War (Sir J. Corbett, 1907).

#### B.—BOOKS ON SPECIAL PORTIONS OF THE EMPIRE OR WORLD.

The Rise and Expansion of British Dominions in India (Sir A. O. Lyall, 1894).

General Survey of the History of India (Sir Verney Lovett).  
India in 1928-29 (J. Coatman).

India in 1929-30 (Bajpai).

Modern Egypt (Cromer, 1908).

Egypt and the Army (Elgood, 1924).

The History of Canada (W. L. Grant).

Report on British North America (Sir. C. P. Lucas).

The Union of South Africa (R. H. Brand, 1909).

History of the Australasian Colonies (Jenks, 1912).

The Lost Possessions of England (W. F. Lord, 1896).

International Relations of the Chinese Empire (H. B. Mosse).  
(Kelly and Walsh, Shanghai).

What's Wrong with China? (Gilbert).

Why China Sees Red (Putman-Weale).

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#### MILITARY GEOGRAPHY.

##### 14.—*Military Geography.*

Naval and Military Geography of the British Empire (Dr. Vaughan Cornish, 1916).

Imperial Military Geography (Capt. D. H. Cole).

Imperial Communications (Wakeley).

## TACTICS.

### 15.—*Tactical Problems.*

Common mistakes in the solution of tactical problems and how to avoid them (Lieut.-Colonel A. B. Beauman, 1926).

Historical illustrations to Field Service Regulations, Vol. II (Major E. G. Eady, 1926).

Elementary Tactics or the Art of War, British School (Major R. P. Pakenham-Walsh, 1927).

## IX.—Schemes.

Efforts are being made to compete with demands for tactical schemes from officers working for the Staff College and Promotion Examinations by introducing as many new schemes as possible. In addition to reprints of several schemes, the Institution is now in possession of the complete set of schemes with solutions set at the 1930 Army Headquarters Staff College Course.

It is obviously impossible for the Secretary to undertake the correction of individual solutions, but all the recent schemes include a suggested solution in the form in which it is considered that the paper should have been answered, with reasons for the solution given.

In order to simplify their issue, the schemes have been classified and numbered as follows.

They can all be obtained by V. P. P., *plus* postage, on application to the Secretary. When ordering members are requested to give the number and subject of the schemes required.

## PROMOTION SERIES.

(A) *Administrative Exercise, with diagram.* (Reprinted May, 1928).

To illustrate the supply system of a Division ..Rs. 2.

(B) *Tactical Schemes* (Reprinted May, 1928). Complete with maps and solutions :—

*Lieutenant to Captain.*—

(i) Mountain Warfare .. ..Rs. 2-8

(ii) Defence .. .. ,, 2-8

Attack orders.

*Captain to Major.*—

- (i) Outposts .. .. . Rs. 2-8  
     Defensive position.  
     Withdrawal.
- (ii) Tactical exercise without troops .. .. . „ 2-8  
     Reconnaissance.  
     Attack orders.

## STAFF COLLEGE SERIES.

(C) *Tactical Schemes (Reprinted May, 1928).* With one map for the three schemes and solutions :—

- (i) Approach March .. .. . Rs. 2-8  
     Reconnaissance before night attack.  
     Orders for night attack.
- (ii) Outposts .. .. . „ 2-8  
     Defence.  
     Action of a force retiring.
- (iii) Move by M. T. .. .. . „ 2-8  
     Occupation of a defensive position.  
     Counter-attack.

(D) *Army Headquarters Staff College Course Tactical Schemes—1928.*—Three tactical schemes, complete with maps

- and solutions ..Rs. 3 each. (Re. 1 without maps.)
- (i) Advanced-Guard, Operation Orders and Appreciation.
- (ii) Withdrawal—Operation Orders.
- (iii) Rear-Guard, Appreciation and Operation Orders. (Map as for (i).)

1929.—Three tactical schemes, complete with maps and solutions ..Rs. 3 each. (Re. 1 without maps.)

- (i) Withdrawal—Appreciation.
- (ii) Advanced-Guard—Operation Orders with march table. (Map as for (i).)
- (iii) Attack, Appreciation and Operation Orders.

1930.—Three tactical schemes, complete with maps and solutions ..Rs. 3 each. (Re. 1 without maps.)

- (i) Defence.
- (ii) Attack.
- (iii) Advanced-Guard. (Map as for (i).)

*(E) Mountain Warfare.—*

(i) A scheme, with map and solution (Reprinted May 1928) .. ..Rs. 2-8

(ii) A scheme, with map and solution (1930) .. .., 2-8

*(F) Administrative Exercise, with diagram. (Reprinted May, 1928).*

To illustrate the supply system of a Division ..Rs. 2

*(G) Other Schemes and Specimen Examination Papers.—*

(i) Supply Problem (without maps and solutions)

1930 .. ..Re. 1 each

(ii) Movements (1930) .. ..,

(iii) Law (1930) .. ..,

(iv) Organization and Administration—Movements (War)—1930 .. ..,

(v) Organization and Administration—Movements (Peace)—1930 .. ..,

(vi) Imperial Organization (1930) .. ..,

**X.—Precis of Lectures.**

A number of precis of lectures delivered to the Army Headquarters Staff College Course is available for members on payment. These precis are sufficiently full to be of great value to those who have not attended the lectures. The majority of these precis are those of the 1930 Staff College Course; the date of the precis is given in each case.

(i) Hints on working for Examinations (1930) .. As. 8 each

(ii) Artillery Organization (1930) .. ..

(iii) The employment of Artillery (1930) .. ..

(iv) Anti-Aircraft Defence (1930) .. ..

(v) Aircraft in Co-operation with the Army (1930) ..

(vi) The Employment of Divisional Cavalry (1930) ..

(vii) Tanks (1930) .. ..

(viii) Armoured Cars (1930) .. ..

(ix) Military Engineering (1930) .. ..

(x) Frontier Warfare, I (1930) .. ..

(xa) Mountain Warfare, II (1930) .. ..

(xi) Night Operations (1930) .. Re. 1 each

(xii) The Organization of the British Army (1930) .. As. 8 each

(xiii) Ordnance Services in Peace and War (1930) .. ..

(xiv) Medical Services (1930) .. ..

(xv) Mobilization (1930)	..	..	As. 8 each
(xvi) Reinforcements (1930)	..	..	"
(xvii) Movements (1930)	..	..	"
(xviii) Internal Security, I (1930)	..	..	"
(xviii a) Internal Security, II (1930)	..	..	"
(xix) The Tactical Lessons of the Great War (1930) ..			"
(xx) The Organization and Employment of Royal Engineers (1930)	..	..	"
(xxi) Military Law, I (1930)	..	..	"
(xxia) Military Law, II (1930)	..	..	"
(xxib) Military Law, III (1930)	..	..	"
(xxii) East Prussian Campaign (1930)		..	As. 12 each
(xxiii) The Dardanelles Campaign (1930)		..	Re. 1-8 each
(xxiv) The Palestine Campaign, I (1930)		..	"
(xxiva) The Palestine Campaign, II (1930)		..	"
(xxv) The Action of the B. E. F. in France up to the Aisne, I (1930)	..	..	Re. 1 each
(xxva) The Action of the B. E. F. in France up to the Aisne, II (1930)	..	..	"
(xxvi) The Third Afghan War (1930)	..	..	As. 12 each
(xxvii) Napoleon's Campaign in Italy, 1796 (1930)	..	..	"
(xxviii) The Peninsular War up to and including Salamanca (1930)	..	..	"
(xxix) The Waterloo Campaign, I (1930)	..	..	"
(xxixa) The Waterloo Campaign, II (1930)	..	..	"
(xxx) The American Civil War (1930)	..	..	"
(xxxi) The Russo-Japanese War (1930)	..	..	As. 8 each
(xxxii) Transportation-War (1930)	..	..	"
(xxxiii) Training (1930)	..	..	"
(xxxiv) The "Q" Administrative Services in Peace (1930)	..	..	"
(xxxv) Inter-communication within a Division 1929	..	..	"
(xxxvi) The Indian Territorial Force (1929)	..	..	"
(xxxvii) Organization and Administration, Peace (1929)	..	..	"
(xxxviii a) Organization and Administration, War (1929)	..	..	"
Course of five lectures given at the London School of Economics, 1925, on "Transportation in War."			
		..	As. 12 each

**XI.—Historical Research.**

The U.S. I. is prepared to supply members and units with manuscript or type-written copies of old Indian Army List pages, at the rate of Rs. 2 per manuscript or type-written page.

The staff of the Institution is always available to assist units, authors of regimental histories and members by searching the many old military records in the Library on their behalf.

**XII.—Gold Medal Prize Essay Competition.**

The Gold Medal for the Prize Essay of 1930 has been awarded to Brevet Major C. M. P. Durnford, 4/6th Rajputana Rifles, whose essay appears in this number. The subject for the Prize Essay Competition of 1931 and the conditions of entry are given on page 371.

**XIII.—Corrigendum.**

It is regretted that, owing to a printer's error, in Captain Bullock's article on "Honorary Colours of the Indian Forces," published in the July 1930 number of the Journal, the date 1897 given in note ‡ on page 291 should have read 1817.

**UNITED SERVICE INSTITUTION OF INDIA.****PRIZE ESSAY GOLD MEDALLISTS.**

*(With Rank of Officers at the date of the Essay).*

- 1872 ..ROBERTS, Lieut.-Col. F. S., V.C., C.B. R.A.
- 1873 ..COLQUHOUN, Capt. J. S., R.A.
- 1874 ..COLQUHOUN, Capt. J. S., R.A.
- 1879 ..ST. JOHN, Maj. O.B.C., R.E.
- 1880 ..BARROW, Lieut. E. G., 7th Bengal Infantry.
- 1882 ..MASON, Lieut. A. H., R.E.
- 1883 ..COLLEN, Maj. E. H. H., S.C.
- 1884 ..BARROW, Capt. E. G., 7th Bengal Infantry.
- 1887 ..YATE, Lieut. A. C., 27th Baluch Infantry.
- 1888 ..MAUDE, Capt. F. N., R.E.
- YOUNG, Maj. G. F., 24th Punjab Infantry (specially awarded a silver medal).
- 1889 ..DUFF, Capt. B., 9th Bengal Infantry.
- 1890 ..MAGUIRE, Capt. C. M., 2nd Cavy. Hyderabad Contingent.
- 1891 ..CARDEW, Lieut. F. G., 10th Bengal Lancers.
- 1893 ..BULLOCK, Maj. G. M., Devonshire Regiment.



- 1894 ..CARTER, Capt. F. C., Northumberland Fusiliers.  
 1895 ..NEVILLE, Lieut.-Col. J. P. C., 14th Bengal Lancers.  
 1896 ..BINGLEY, Capt. A. H., 7th Bengal Infantry.  
 1897 ..NAPIER, Capt. G. S. F., Oxfordshire Light Infantry.  
 1898 ..MULLALY, Maj. H., R.E.  
     CLAY, Capt. C. H., 43rd Gurkha Rifles (specially awarded a  
     • silver medal).  
 1899 ..NEVILLE, Col. J. P. C., S.C.  
 1900 ..THUILLIER, Capt. H. F., R.E.  
     LUBBOCK, Capt. G., R.E. (specially awarded a silver medal).  
 1901 ..RANKEN, Lieut.-Col. G. P. P., 46th Punjab Infantry.  
 1902 ..TURNER, Capt. H. H. F., 2nd Bengal Lancers.  
 1903 ..HAMILTON, Maj. W. G., D.S.O., Norfolk Regiment.  
     BOND, Capt. R. F. G., R.E. (specially awarded a silver medal).  
 1904 ..MACMUNN, Maj. G. F., D.S.O., R.F.A.  
 1905 ..COCKERILL, Maj. G. K., Royal Warwickshire Regiment.  
 1907 ..WOOD, Maj. E. G.M., 99th Deccan Infantry.  
 1908 ..JEUDWINE, MAJ. H. S., R.A.  
 1909 ..MOLYNEUX, Maj. E. M. J., D.S.O., 12th Cavalry.  
     ELSMIE, Maj. A. M. S., 56th Rifles, F. F. (specially awarded a  
     silver medal).  
 1911 ..Mr. D. PETRE, M.A., Punjab Police.  
 1912 ..CARTER, Maj. B. C., The King's Regiment.  
 1913 ..THOMSON, Maj. A. G., 58th Vaughan's Rifles (F. F.).  
 1914 ..BAINBRIDGE, Lieut.-Col. W. F., D.S.O., 51st Sikhs (F. F.).  
     NORMAN, Maj. C. L., M.V.O., Q. V. O. Corps of Guides  
     (specially awarded a silver medal).  
 1916 ..CRUM, Maj. W. E., V.D., Calcutta Light Horse.  
 1917 ..BLAKER, Maj. W. F., R.F.A.  
 1918 ..GOMPERTZ, Capt. A. V., M.C., R.E.  
 1919 ..GOMPERTZ, Capt. M. L. A., 108th Infantry.  
 1920 ..KEEN, Lt.-Col. F. S., D.S.O., 2/15th Sikhs.  
 1922 ..MARTIN, Maj. H. G., D.S.O., O.B.E., R.F.A.  
 1923 ..KEEN, Col. F. S., D.S.O., I.A.  
 1926 ..DENNYS, Maj. L. E., M.C., 4/12th Frontier Force Regiment.  
 1927 ..HOGG, Maj. D. Mc. A., M.C., R.E.  
 1928 ..FRANKS, Maj. K. F., D.S.O., 5th Royal Mahrattas.  
 1929 ..DENNYS, Maj. L. E., M.C., 4/12th Frontier Force Regiment.  
 1930 ..DURNFORD, Maj. C. M. P., 4/6th Rajputana Rifles.

## THE MACGREGOR MEMORIAL MEDAL.

1. The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major-General Sir Charles MacGregor. The medals are awarded for the best military reconnaissances or journeys of exploration of the year.

2. The following awards are made annually in the month of June :—

(a) For officers—British or Indian—silver medal.

(b) For soldiers—British or Indian—silver medal, with Rs. 100 gratuity.

3. For especially valuable work a gold medal may be awarded in place of one of the silver medals, or in addition to the silver medals, whenever the administrators of the fund deem it desirable. Also the Council may award a special additional silver medal, without gratuity, to a soldier, for especially good work.

4. The award of medals is made by His Excellency the Commander-in-Chief, as Vice-Patron, and the Council of the United Service Institution who were appointed administrators of the Fund by the MacGregor Memorial Committee.

5. Only officers and soldiers belonging to the Army in India (including those in civil employ) are eligible for the award of the medal.\*

6. The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal.†

### *Note.*

(i) Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal; but in the event of two journeys being of equal value, the man who has run the greater risk will be considered to have the greater claim to the reward.

(ii) When the work of the year has either not been of sufficient value, or has been received too late for consideration before the Council Meeting, the medal may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief to deserve it.

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\* *N.B.*—The terms “officer” and “soldier” include those serving in the British and Indian armies and their reserves, also those serving in Auxiliary Forces, such as the Indian Auxiliary and Territorial Forces and Corps under Local Governments, Frontier Militia, Levies and Military Police, also all ranks serving in the Indian States Forces.

† Replacements of the ribbon may be obtained on payment from the Secretary, U. S. I., Simla.

## MACGREGOR MEMORIAL MEDALLISTS.

*(With rank of officers and soldiers at the date of the Award.)*

- 1889..BELL, Col. M. S., v.C.R.E. (specially awarded a gold medal).
- 1890..YOUNGHUSBAND, Capt. F. E., King's Dragoon Guards.
- 1891..SAWYER, Maj. H. A., 45th Sikhs.  
RAMZAN KHAN, Havildar, 3rd Sikhs.
- 1892..VAUGHAN, Capt. H. B., 7th Bengal Infantry.  
JAGGAT SINGH, Havildar, 19th Punjab Infantry.
- 1893..BOWER, Capt. H., 17th Bengal Cavalry (especially awarded a gold medal).  
FAZALDAD KHAN, Dafadar, 17th Bengal Cavalry.
- 1894..O'SULLIVAN, Maj. G. H. W., R.E.  
MULL SINGH, Sowar, 6th Bengal Cavalry.
- 1895..DAVIES, Capt. H. R., Oxfordshire Light Infantry.  
GANGA DYAL SINGH, Havildar, 2nd Rajputs.
- 1896..COCKERILL, Lieut. G. K., 28th Punjab Infantry.  
GHULAM NABI, Sepoy, Q. O. Corps of Guides.
- 1897..SWAYNE, Capt. E. J. F., 10th Rajput Infantry.  
SHAHZAD MIR, Dafadar, 11th Bengal Lancers.
- 1898..WALKER, Capt. H. B., Duke of Cornwall's Light Infantry.  
ADAM KHAN, Havildar, Q. O. Corps of Guides.
- 1899..DOUGLAS, Capt. J. A., 2nd Bengal Lancers.  
MIHR DIN, Naik, Bengal Sappers and Miners.
- 1900..WINGATE, Capt. A. W. S., 14th Bengal Lancers.  
GURDIT SINGH, Havildar, 45th Sikhs.
- 1901..BURTON, Maj. E. B., 17th Bengal Lancers.  
SUNDAR SINGH, Colour Havildar, 31st Burmah Infantry.
- 1902..RAY, Capt. M. R. E., 7th Rajput Infantry.  
TILBIR BHANDARI, Havildar, 9th Gurkha Rifles.
- 1903..MANIFORD, Lieut.-Col. C. C., I.M.S.  
GHULAM HUSSAIN, Lance-Dafadar, Q.O. Corps of Guides.
- 1904..FRASER, Capt. L. D., R.G.A.  
MOGHAL BAZ, Dafadar, Q. O. Corps of Guides.
- 1905..RENNICK, Maj. F., 40th Pathans (specially awarded a gold medal).  
MADHO RAM, Havildar, 8th Gurkha Rifles.
- 1906..SHAHZADA AHMAD MIR, Risaldar, 36th Jacob's Horse.  
GHAFUR SHAH, Lance-Naik, Q. O. Corps of Guides Infantry.
- 1907..NANGLE, Capt. M. C., 92nd Punjabis.  
SHEIKH USMAN, Havildar, 103rd Mahratta Light Infantry.

## MACGREGOR MEMORIAL MEDALLISTS—(contd.).

- 1908..GIBBON, Capt. C. M., Royal Irish Fusiliers.  
MALANG, Havildar, 56th Punjab Rifles.
- 1909..MUHAMMAD RAZA, Havildar, 106th Pioneers.
- 1910..SYKES, Maj. M., C.M.G., late 2nd Dragoon Guards (specially awarded a gold medal).  
TURNER, Capt. F. G., R.E.  
KHAN BAHADUR SHER JUNG, Survey of India.
- 1911..LEACHMAN, Capt. G. E., The Royal Sussex Regiment.  
GURMUKH SINGH, Jemadar, 93rd Burmah Infantry.
- 1912..PRITCHARD, Capt. P. P. A., 83rd Wallahjabad Light Infantry (specially awarded a gold medal).  
WILSON, Lieut. A. T., C.M.G., 32nd Sikh Pioneers.  
MOHIBULLA, Lance-Dafadar, Q. V. O. Corps of Guides.
- 1913..ABBAY, Capt. B. N., 27th Light Cavalry.  
SIRDAR KHAN, Sowar, 39th (K. G. O.) Central India Horse.  
WARATONG, Havildar, Burmah Military Police (specially awarded a silver medal).
- 1914..BAILEY, Capt. F. M., I.A. (Political Department).  
MORSHEAD, Capt. H. T., R.E.  
HAIDAR ALI, Naik, 106th Hazara Pioneers.
- 1915..WATERFIELD, Capt. F. C., 45th Rattray's Sikhs.  
ALI JUMA, Havildar, 106th Hazara Pioneers.
- 1916..ABDUR RAHMAN, Naik, 21st Punjabis.  
ZARGHUN SHAH, Havildar, 58th Rifles (F. F. ) (specially awarded a silver medal).
- 1917..MIAN AFRAZ GUL, Sepoy, Khyber Rifles.
- 1918..NOEL, Capt. E. W. C. (Political Department).
- 1919..KEELING, Lieut.-Col. E. H., M.C., R.E.  
ALLA SA, Jemadar, N. E., Frontier Corps.
- 1920..BLACKER, Capt. L. V. S., Q. V. O. Corps of Guides.  
AWAL NUR, C. Q. M. Havildar, 2nd Bn., Q. V. O. Corps of Guides. (Special gratuity of Rs. 200.)
- 1921..HOLT, Maj. A. L., Royal Engineers.  
SHER ALI, Sepoy No. 4952, 106th Hazara Pioneers.
- 1922..ABDUL SAMAD SHAH, Capt., O.B.E., 31st D.C.O. Lancers.  
NUR MUHAMMAD, Lance-Naik, 1st Guides Infantry, F. F.

MACGREGOR MEMORIAL MEDALLISTS—(*concl'd.*).

- 1923..BRUCE, Capt. J. G., 2/6th Gurkha Rifles.  
 SOHBAT, Head Constable, N.-W. F. Police.  
 HARI SINGH THAPA, Survey Department (specially awarded a silver medal).
- 1924..HAVILDAR RAHMAT SHAH, N.-W. F. Corps.  
 NAIK GHULAB HUSSAIN, N.-W. F. Corps.
- 1925..SPEAR, Capt. C. R., 5/13th Frontier Force Rifles.  
 JABBAR KHAN, Naik, 5/13th Frontier Force Rifles.
- 1926..HARVEY-KELLY, Maj. C. H. G. H., D.S.O., 4/10th Baluch Regiment.
- 1927..LAKE, Maj. M. C., 4/4th Bombay Grenadiers.
- 1928..BOWERMAN, Capt. J. F., 4/10th D.C.O. Baluch Regiment.  
 MUHAMMAD KHAN, Havildar, Zhob Levy Corps.
- 1929..ABDUL HANAN, Naik, N.-W. F. Corps. (With gratuity of Rs. 100.)  
 GHULAM ALI, Dafadar, Guides Cavalry (specially awarded a silver medal).
- 1930..GREEN, Capt. J. H., 3/20th Burma Rifles.
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# The Journal

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### EDITORIAL.

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One need not agree with every argument and recommendation in the Report of the Indian Statutory Commission to be impressed by the bold conception underlying all its recommendations—a great federation of largely autonomous Provinces and States, each developing on its own lines, but all united under a strong central government, from which the guiding hand of Great Britain is progressively withdrawn as India shows herself increasingly fitted to take her place as a full self-governing partner in the Empire. The whole report is worthy of the most attentive study by members of the Fighting Services, but it is natural that their closest scrutiny should be reserved for those portions dealing with the Army in India and Defence. In these is admirably described the unique military position of India, which differs from that of any other portion of the Empire in three essentials :—

1. The Army and Air Force must always be prepared to meet a danger of the first magnitude on a land frontier.
2. A large body of troops, “whose neutrality in a communal conflict may be not only assured but generally recognised,” must be available for internal security.
3. The Indian Army, owing to the varying martial characteristics of the people, is almost entirely recruited from comparatively small areas and special races.

Each of these three factors results in the need for a strong British element. In the first, to secure the efficiency of the Field Army and Covering Troops for their task ; in the second, because only British troops are accepted as neutrals in communal disputes ; and in the third, because an Indian Army drawn almost exclusively from a selected and localized minority would constitute a real menace to the rest

from the obvious disadvantages of having two separately controlled armies in one country, it is improbable that the Indian Government would be able to find money for separate forces of its own. In fact, acceptable as they might be to the Services, and possessed of many advantages as they undoubtedly are, these recommendations of Sir John Simon and his colleagues have, it is to be feared, little chance of becoming practical politics.

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There is, however, one recommendation of the Statutory Commission which is much more likely to be translated into accomplished fact. That is the proposal to separate Burma from India. There are excellent arguments, based on racial difference, geographical position, cultural and religious dissimilarity, and divergence of economic interest, why the unanimous Burman desire for separation should be acceded to, and an accidental and artificial union brought to an end. There were perhaps historical reasons for leaving Burma under the rule of an autocratic British government in India, but there can be none for handing her over to an Indian government, not responsible to the British Parliament. The objection to separation that carries most weight is the military one. The Army in India is maintained to defend the frontiers of Burma, as well as those of India proper, and one flank of India's frontier is in Burma. The North East Frontier marches with those of one great Power, one potentially great Power, and one small Power—France, China and Siam. At the moment an attack by France or Siam is unthinkable, and by China almost equally improbable, but the danger, though remote, and, compared with that on the North West, inconsiderable, nevertheless exists. Should it, as it may in the future, develop into a real menace, Burma alone would be unable to meet it. Help would have to be sent from somewhere, and the most obvious and suitable source from which reinforcement could come is the Army in India. The problem of the defence of Burma is, therefore, strategically one with that of India itself, and should be entrusted to the same force—the Army in India—and the same direction—that of the Commander-in-Chief in India.

But is this a strong enough reason to over-ride all the weighty arguments for separation? Taking the broad view, it must be agreed that it is not. As the Report says, "The proposition that two areas in the British Empire which are politically quite distinct must none

the less remain under the same government because they present a common military problem goes much too far." Political separation need not necessarily mean military separation. It would be quite possible to arrive at an arrangement by which the Army in India continued to be responsible for Burmese defence, guaranteeing to maintain a minimum garrison in Burma, and to send reinforcements in an emergency. The present Burmese units would be maintained or increased, and Burma would make an agreed contribution to the cost of the Army in India. There is, however, the almost certain probability that for sentimental reasons Burma would desire military as well as political separation, and there are financial and administrative arguments in its favour. Should this be accepted Burma would then become a separate military entity, and India's responsibility for her defence would cease. The British units in Burma would become part of the "Army in Burma", and new Burmese units would be raised to replace the Indian ones which would presumably be disbanded as surplus to Indian requirements. India and Burma would of course still collaborate in plans for defence against serious aggression, but Burma would have no absolute guarantee that India would come to her aid.

There is one aspect of military separation which must not, however, be overlooked. The Burmese Army would inevitably be a small one. The prospect of any of its officers rising to the command of even a brigade would be correspondingly slight, while chances of reaching really high rank would be non-existent. In addition their opportunities of active service would probably be less than those of the Indian Army. These disadvantages could not fail to react unfavourably on recruitment. The position might be improved by including in the Army the Burma Military Police, but it is doubtful if even this would give chances of advancement equal to those in the British and Indian Armies. It is possible, therefore, that the solution of this difficulty would be sought in some scheme of secondment of officers from the British and Indian Armies to the Burmese.

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Turning from the possibilities of the future to the events of the immediate past, the recent Frontier disturbances claim attention. There is no doubt that the situation between the 6th and 10th August deserved the description of "serious" applied to it by the Government



of India. The irruption of a few hundred Afridis into the Peshawar plain did not constitute a great military menace ; the danger lay in the effect their action was likely to have on our own frontier districts and on the other tribes. Had the Afridis obtained, even temporarily, any real success, rumour would have exaggerated it tenfold, and, at once, the barely suppressed disaffection on this side of the border would have flamed out anew, while the Utman Khel, Mohmands, Orakzais and probably Wazirs and Mahsuds would have joined in the rush for loot. The Frontier authorities would then have been faced with open rebellion in the Peshawar and possibly other districts, combined with simultaneous attacks from the Malakand to Wana—a situation rather more than “serious”. Luckily the troops and air force, by their prompt and vigorous action, were able to prevent this by denying such a preliminary success to the invaders.

These disturbances have differed from previous frontier outbreaks in several particulars—some favourable to us, some rather disquieting. To begin with, while practically every Trans-frontier tribe from the Bajauris to the Mahsuds has taken part, no tribe has been completely and whole-heartedly against us. There have always been sections or elements who have either opposed the hot heads, or, at least, taken no active part in the attacks. As a result in every case the risings have been rather half-hearted affairs, which needed initial successes, which they never obtained, to turn them into something really formidable. Again, fortunately for us, the outbreaks were not simultaneous ; troops and aircraft could be switched from one tribal front to another as need arose. A conspicuous feature of these operations has been the greatly enhanced striking power of the Royal Air Force against the tribesman in his own remote villages. Material and moral losses have been inflicted on him from the air in a way that would have been impossible even a few years ago. Another source of satisfaction is the number of actions in which the troops have inflicted heavier casualties on the tribesmen than they have suffered themselves. This has been particularly noticeable in Waziristan and is a welcome change from our experiences of 1919-20, giving evidence of a relatively higher standard of tactical skill, individual confidence and weapon training. The friendly attitude of King Nadir Shah and, under his instructions, that of practically all Afghan officials has also had a restraining effect on the tribes which it would be difficult to over-estimate. Against these favourable factors must be set the new and somewhat disconcerting

tactics which the tribesmen have adopted, largely to avoid the vigilance of the Air Force. The *lashkars* by moving at night, or in small parties by routes giving cover from the air, to concentration places where caves and *nullahs* offer bomb proof protection, and thence infiltrating into our territory during darkness, have made the task of troops and air force at times extremely difficult. But the most disquieting feature of all has been the assistance these tribal incursions have received from our own side of the border. Over considerable areas around Peshawar Mohmands, Utman Khel and Afridis have obtained, if not recruits to their *lashkars*, at least supplies, information, shelter and encouragement, while in no case have the villagers attempted to refuse them right of way. It was the Congress and "Red Shirt" disturbances in these districts which led to the raising of the *lashkars*, and the interplay between the two sides of the border is plain. Unrest in the settled districts will inevitably spread across the administrative frontier, and attacks by tribesmen are infinitely more dangerous when the country on our side of the border is disturbed and hostile. The task of troops engaged in ejecting tribesmen from villages and crops in a district where the local population is more inclined to assist the invaders than the Government forces, and yet which is not a war area, is as difficult and trying as can well be imagined. Without this help from the local inhabitant the tribesman's infiltration tactics would be impossible. The lesson for the future seems to be that the essential thing is to avoid widespread disaffection in our own districts, by removing legitimate grievances if such exist, and by dealing promptly, vigorously and unmistakably, with sedition before immunity gives it encouragement.

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The terms on which Indian Army officers commissioned between 1914 and 1920 and Lieutenant-Colonels not holding Lieutenant-Colonel's appointments may retire have at last been announced. It has long been known that the Government intended to offer some inducement to these officers to leave the Service and thus avoid the inevitable block in promotion and its attendant disadvantages that would otherwise arise a few years hence. There has been a good deal of criticism at the time that has elapsed since such a measure was first decided to be necessary and the actual publication of the terms. The anxiety of those likely to be affected is easily understandable, but it must be remembered that on such a question many authorities, both in Simla and in Whitehall,

had to be consulted. With the best will in the world, the exchange of views between them, even by cable, must take a considerable time. Any other delays were largely due to the exploration of every means by which the terms could be made more attractive to officers.

Bearing in mind that the measure is in no sense an "axeing", as all retirements will be completely voluntary, the terms, while by no means generous, are fair. They will probably appeal to the badly-placed bachelor, to those who have prospects of suitable civil employment, and to some of the more senior officers concerned. But this does not mean that the terms are so attractive that a rush to accept them may be anticipated. Far from it. The vast majority of officers to whom they apply are over thirty, a very large number are married, and in these hard times comparatively few have any considerable private means. Then too, the last series of "axeings" allowed most of the officers who found military life had grown uncongenial to retire, and the present is a most unpropitious time for ex-officers to seek openings in civil life. It is to be expected that a certain number of officers will retire on these terms at once, but that the majority will wait at least until 1933. How many will go even then remains to be seen. The scheme has, however, one excellent feature—it continues in operation for five years. This means that decisions on it need not be made in a hurry; an officer will have ample time to take stock of his position. Those, who for age or other reasons are badly placed would be wise, especially when on leave, to investigate the possibilities of civil employment at Home, while the enterprising may find it worth while to get into touch with the larger European firms in this country.

### AWARD OF THE MACGREGOR MEMORIAL MEDAL FOR 1930.

The Macgregor Memorial Medal for 1930 has been awarded to Captain J. H. Green, 3/20th Burma Rifles, for his valuable reconnaissance of "The Triangle" in 1926.

"The Triangle" is the large unadministrated area in Upper Burma lying between the rivers Mali Hka and 'Nmai Hka, which from their confluence form the Irrawaddy. The country traversed by Captain Green was the northern or upper portion of "The Triangle." This area had never before been penetrated by a European, although in about 1903 the explorer Young with three Lisu guides had made a dash across the centre of "The Triangle," getting through with some difficulty, and still further south a small punitive column had burnt some villages in 1896. The formerly completely unexplored northern region is a mass of hills, covered with leech-infested jungle, and intersected with innumerable streams, which are liable after rain to become raging torrents. Roads, of course, there are none, but many of the villages are connected by tracks which, as long as the weather remains fine, can be classed as, on the whole, fair. After rain these tracks become slippery and difficult, if not impossible, for loaded porters or mules.

Captain Green was accompanied only by half-a-dozen Kachin riflemen of the 10/20th Burma Rifles, a Chinese muleteer, and seven Kachin servants and coolies, in all fifteen persons and six mules, not a very large number to cross such a wild and unknown area. With the exception of Captain Green's shot gun his party was unarmed. The people of the upper Triangle are Kachins, untouched by civilization living in their villages ruled by their own *duwas*, or chiefs, some important, some petty. They are jealous of their independence, but on the whole, Captain Green met with a friendly reception, although on one occasion it was touch and go whether the whole party would be butchered or not.

### 371 GOLD MEDAL PRIZE ESSAY COMPETITION, 1931.

The Council has chosen the following subject for the Gold Medal Prize Essay Competition for 1931 :—

**“ Discuss the organization and control of the military, naval and air forces in India during the future advance towards responsible Government and after, and their relation to the police and other civil forces of the Crown.**

The following are the conditions of the competition :—

- (1) The competition is open to all gazetted officers of the Civil Administration, the Royal Navy, Army and Royal Air Force or Auxiliary Forces, who are members of the U. S. I. of India.
- (2) Essays must be type-written and submitted in triplicate.
- (3) When reference is made to any work, the title of such work is to be quoted.
- (4) Essays are to be strictly anonymous. Each must have a motto, and, enclosed with the essay, there should be sent a sealed envelope with the motto written on the outside and the name of the competitor inside.
- (5) Essays will not be accepted unless received by the Secretary on or before the 30th June 1931.
- (6) Essays will be submitted for adjudication to three judges, chosen by the Council. The judges may recommend a money award, not exceeding Rs. 150, either in addition to or in substitution for the medal. The decision of the three judges will be submitted to the Council, who will decide whether the medal is to be awarded and whether the essay is to be published.
- (7) The name of the successful candidate will be announced at a Council Meeting to be held in September or October 1931.
- (8) All essays submitted are to become the property of the United Service Institution of India absolutely, and authors will not be at liberty to make any use whatsoever of their essays without the sanction of the Council.
- (9) Essays should not exceed 15 pages of the size and style of the Journal, exclusive of any appendices, tables or maps.

## THE GOLD MEDAL PRIZE ESSAY, 1930.

*The judges appointed for the 1930 Competition, viz., Lieut.-General Sir Norman Macmullen, K.C.B., C.M.G., C.I.E., D.S.O., Mr. E. B. Howell, C.S.I., C.I.E., I.C.S., and Major-General D. Deane, C.B., D.S.O., have given first place to the essay submitted by Brevet Major C. M. P. Durnford, 4/6th Rajputana Rifles (Outram's). The Council of the United Service Institution of India has, accordingly, awarded a gold medal and Rs. 150/- to Major Durnford.*

*The essay submitted by Captain D. B. Mackenzie, 5/13th Frontier Force Rifles is placed second, and those submitted by Major B.H. Robertson, D.S.O., M.C., Royal Engineers, and Major L. E. Dennys, M.C., 4/12th Frontier Force Regiment are highly commended.*

### SUBJECT.

**"With the development of our frontier policy the tribesmen are gradually finding it more and more difficult to pursue their normal avocation of raiding; economic conditions in tribal territory, however, remain much as they were."**

**"Discuss how we can best assist the economic development of tribal territory and provide a field of employment for the rising generation of tribesmen."**

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BY BREVET MAJOR C. M. P. DURNFORD, 4/6TH RAJPUTANA  
RIFLES (OUTRAM'S).

#### 1. *Introduction.*

A mental survey of the frontier, and of frontier policy, from from the Mohmand country in the north, southwards through the Tirah to the Kurram, and thence through Waziristan and Baluchistan to the sea, will rapidly locate the present centre of interest, as far as the development of policy is concerned, in Waziristan. In the other frontier districts there has been no great recent change of policy comparable in any way with the decision which was made in 1922 to occupy Razmak permanently and to dominate and control Waziristan, for the future, from within. The basis of this paper will, therefore, be the present situation and problems in Waziristan, as these or similar conditions and problems will, in all probability, be re-encountered

elsewhere, as and when progressive stages in the pacification and consolidation of successive frontier districts are reached. It will therefore perhaps not be out of place to consider for a moment the general outlines of the chain of events of which the present situation in Waziristan is the outcome.

The Durand Agreement of 1893 gave us the common frontier with Afghanistan which exists at the Durand Line to-day. When this agreement was arrived at the then Amir renounced any claim to authority over the tribes on our side of the agreed line. Although Waziristan thus came definitely into the British sphere it was not considered politic, in view of the difficulties inherent in the problem, to attempt to establish more than the most shadowy form of control among the turbulent inhabitants of this mountainous and, at that time, almost impenetrable tract of country.

The main pre-occupation of the Government of India was the protection of the settled districts in the Indus Valley from the traditional raids of the tribesmen who, as it was then only partially realised, were driven to raiding as much by the poverty of their own country, in comparison with the prosperity of the adjacent districts in the plains, as by their natural proclivities. Lord Curzon, therefore, instituted the "Close-Border" policy which was designed to ensure the security of the settled and administered districts, while definitely avoiding interference in tribal affairs and penetration into tribal territory. This was to be effected by a line of Military and Frontier Constabulary posts along the foot hills and in the plains—a line which would cut off and protect districts where British security and administration would bring peace and growing prosperity, from the hill country. In the latter we did not propose to concern ourselves with the fortunes of the inhabitants, though at the same time we denied any right to the only other adjacent State which had any power to do so, to interest itself in them. Our only effort across the administrative border was the installation of Militia posts along those natural highways of trade, the Tochi and Gomal valleys. The Militia were to act as police and to protect the migrant traders on their journeys between Afghanistan and British India.

Looking back it is apparent that this frontier policy was based on values which were false both ethically and from a military point of view. It therefore bore within itself the seeds of future failure. It must be agreed that State has duties in respect of all who live within

its borders, and although the performance of these duties must admittedly be more difficult in some cases and in some districts than in others, yet the rain of the benefits of peace and progress must fall on the just and on the unjust alike. It was a denial of the principles and responsibilities of government to say to the tribes,—“You are separate and cut off from Afghanistan. You live within our frontier. Yet we will shut you off in your inhospitable hills and wash our hands of your well-being and of your affairs. If your country cannot support you, you must starve; but on no account will we let you live, as you have done in the past, by taking forcible toll from your more wealthy neighbours of the plains and from those who use the trade routes through your country.”

Similarly, on the military side, the dispositions of the Militia proved to be a source of weakness rather than of strength in time of trouble. Isolated in small posts and separated from all hope of timely support in case of need, it is small wonder that this organization failed to stand the test of events. Ineffectual through their weakness and isolation, they were at the same time a challenge to the independent spirit of the tribes—and in the fullness of time they were swept away.

The events of 1919, and of the immediately succeeding years, proved the failure and sounded the death-knell of the “close-border” policy. It was proved that our failure to open up tribal country and to impose some measure of effective control in tribal politics had left a fertile field open to the fruitful labours of hostile intriguers, and exposed us to constant incursions into the settled districts, to which the only reply was counter-raids “or burn-and-scuttle” expeditions. These, by their destructive nature, merely accentuated the economic distress which was so largely the root of the trouble and so completed the vicious circle. It was a state of affairs in which there was no finality and no stability—negative in inspiration and deplorable in results. But these results were found to be of more than local importance when, in 1919, the war with Afghanistan broke out. It was then brought home to us that a campaign conducted through the Khyber and Bolan routes requires, as an essential to success, a stable centre. An uncontrolled Waziristan provided the antithesis of this stability and once more proved that the *purdah* must be lifted from tribal territory.

We are therefore committed to-day to the gradual and peaceful penetration of the tribal belt until such time as our frontier and the



limits of our control coincide. In this commitment there is bound up an ever-increasing responsibility for the economic welfare of the tribes, and our acceptance of this burden, however reluctant, can no longer be delayed.

## 2. *The Present Situation.*

Accurate figures as to the population of Waziristan are not available. It is, however, generally accepted, that the total strength of fighting men lies in the neighbourhood of some 65,000. This would give a total population approximating to a quarter of a million. The inhabitants are roughly divisible into (a) the cultivators and (b) the shepherds. The former are industrious and largely live settled lives in their villages on their own lands. The latter wander from grazing area to grazing area; from the low-lying valleys in the winter to the higher altitudes in the hot weather. Conflicting claims to these grazing lands are a frequent source of inter-tribal disputes and bloodshed.

In a recent report on the administration of South Waziristan it was estimated that the grain which the country produces is sufficient to maintain the population for some three to four months only out of the twelve; and it must be emphasised that this estimate refers largely to Mahsud country where the bulk of the people are cultivators of the soil. Beyond this the resources of the inhabitants lie in their flocks and herds and in the timber which comes from the forests on the high hills of the interior.

The occupation of Waziristan has put a stop to raids into the prosperous settled districts. The tribesman realises that even if his raid turns out to be successful he will most probably be intercepted on his way home and, as the road system is extended, more and more of his homes are brought within reach of forces which will demand an account of his acts. Raiding has therefore become hazardous and unprofitable. At the same time, even the loose form of administration which we exercise has put a stop to inter-tribal fighting in the areas which we control and protects the traders on the routes of commerce from undue exactions. Peace brings with it a growing population conserved from the wastage which the previous state of almost uninterrupted hostilities produced. Contact with civilisation, which our roads have brought with them, has raised the standard of living, and is rendering essential, commodities which previously were unheard of.

Meanwhile nature sets a definite limit on the areas which can be cultivated and on the productivity of the land. It is sometime ago that a famous Jalal Khel Mahsud raider said to the then Resident in Waziristan, "Sahib, I have three wives and five strapping sons like myself—and many other relations. You have stopped me raiding in the Districts and in the Tochi, and now I hear you are going to stop me raiding in the Khaisora. You tell me that I may not raid into Afghanistan—where then is independent territory?" (*i.e.*, "Where then may I raid?") "If there is none, then come and see my country, which is nothing but stones, and then tell me how I am to live. Anyhow, if I am not to raid you must give me some other way of living!" Here then is the question which has to be answered in Waziristan to-day—and which will have to be answered in other areas in their turn—"How is the tribesman to live"?

But before putting forward such constructive proposals as may be possible, let it be made clear that there is no desire, from motives of sympathy or pity, to invest the tribesman with an unmerited halo. In fact his own inherent and outstanding faults are at present among the strongest obstacles to his economic progress. To what extent proper handling, a state of security, and increasing civilisation, will eradicate the chief of these faults remains to be seen. At present it must be admitted that the tribes as a whole are still intensely suspicious of our motives towards them and jealous of their poor inheritance to an extent which hampers co-operation towards the improvement of their lot. These traits can only be overcome by closer relations between the Political Officers and the tribes. Practical demonstrations of disinterestedness and altruistic service must win affection in the end, as has been the case repeatedly in the history of our dealings with backward races—and to gain the confidence of these virile hillmen is a high endeavour, worthy to attract and inspire the best among us. An insufficient cadre of British Political Officers is the first handicap to advancement which should therefore be removed, and over-frequent changes among these officers should, at the same time be avoided, as these destroy all possibility of that personal factor which alone can overcome suspicion and engender confidence. It should be unnecessary to remark that those who are chosen for the task should be whole-hearted supporters of the policy which it falls to them to implement—namely to open up the country.

The tribes, again, have an unenviable reputation for treachery and for laziness. But these characteristics have been argued in the past from the particular to the general in a not altogether justifiable manner. In any case the imputed laziness must be taken into consideration with the general conditions of life. Such land as is cultivated is cultivated indeed by the sweat of the brow and with the greatest industry. But, where raid and counter-raid were the rule, of what avail was it to lay up stores beyond immediate needs? And when all the land available had been cultivated what more was there to be done? Treachery must be considered as a feature of the local art of war—the object being to kill one's enemy before being killed oneself, then if strength cannot prevail, why not try cunning? The answer seems to lie in the enforcement, by some powerful outside agency, of a state of security—a guarantee that where a man sows there shall he also reap, and this is what the present policy is slowly but surely doing. Here, in fact, we are brought to a principle which is of such importance that it must be clearly set forth as the basis of all endeavours to advance the economic status of the tribes. This principle is that healthy economic progress and eventual prosperity depend on a state of confidence which security—peace and order—can alone engender. In Waziristan this state of security postulates control. But control can and must be established without undue interference. Tribal custom and Muhammadan religious law must remain the established code for the settlement of purely tribal affairs. Any attempt to introduce a system of government and a foreign legal code, such as exist in India, would be bitterly resisted and must deservedly fail. Our relations with the tribes can only be successfully developed along the lines which Sandeman employed in Baluchistan—namely, by the upholding and strengthening of the tribal system, rather than by attempts at its destruction.

### 3. *The Direct Economic Results of Occupation.*

It is at once obvious that our occupation of various strategic posts in their country has brought to the tribesmen a considerable access of wealth. First of all there are the roads. The building of these has brought not only large lump sums of money into the country at their inception, but also a steady annual income for labour on repair and maintenance. The existence of the roads has called for security along the roads, and this security is provided largely by Khassadars,

or armed tribal police, in whose ranks is found employment for a considerable number of the young men of those tribes through whose lands the roads pass.

The evolution of the Khassadars is an interesting study. At the outset the duties performed by them, in return for the pay which they received were, practically speaking, nil, and their reliability would not have borne examination. This was a state of affairs which was open to the greatest objection, as nothing can be more demoralising than any payment to the tribes except for services rendered. Payment in the hope that the recipients will merely refrain from active hostility is nothing more or less than blackmail. On the other hand, active employment, with adequate reward for services rendered, is the most hopeful method of engendering self-respect and of promoting adherence and loyalty. Happily this has been realised, and although it is questionable whether money is still not going, to a certain extent, into the pockets of many individuals who do little or nothing to deserve it, yet the average Khassadar is responding well to the gradual but definite increase in the calls which are made on him for his services. For example, dumps of supplies have been built up at various points in anticipation of requirements during Mobile Column training, entirely under Khassadar escort and protection. Small unarmed detachments of Army transport and other units move freely up and down the roads with Khassadar escorts by day and piquetted by Khassadars at night. Bostan, the Mahsud who murdered Lieutenant Stephen last year, was pursued by Khassadars through hitherto unpenetrated territory and was finally forced to take refuge across the Frontier. The extent to which the Khassadars can at present be regarded as reliable is admittedly questionable. In the event of a general tribal rising against us it is probable that the bulk of them would disappear at once—their position on our side would be untenable while their families and belongings were within reach of tribal vengeance. But the important point is that they are tribesmen in organised bodies in the employ of the Government, and they represent the first step towards the transfer of tribal interest from veiled or open suspicion and hostility to attachment to the cause of peace and security. Here again a larger British Officer element appears to be desirable—at present Indian subordinate political officials deal very largely with Khassadar control, and, excellent as many of these individuals undoubtedly are, yet it is felt that the increase of confidence and the extension of

control demand that advantage be taken of every opportunity to establish a closer relationship between British officials and the tribes.

Apart from these direct benefits from the construction, maintenance and policing of the roads, the tribes have received large sums of money in the form of royalties on the contracts which have been given out for building the hutments at the various Military and Scouts' posts. In return for these royalties we have had the right to quarry locally such stone as we may require and have obtained tribal goodwill towards the work. A certain number of tribesmen have actually acted as contractors, but owing to lack of experience, and a resulting habit of sub-contracting, this experiment has not been altogether an unqualified success. Tribal dignity acts as a deterrent to the acceptance of direct employment in the form of building labour, and a large amount of imported labour is therefore employed. This is a pity, for it means that money which might go into local pockets eventually leaves the country.

Then again there are the daily requirements of the garrisons in the way of fresh vegetables and fuel. Enormous quantities of firewood are still obtained by local purchase in spite of the gradual introduction of oil cooking. The use of locally supplied wood fuel gives direct employment to foresters and to camel-men and is a source of a further circulation of wealth. Attempts to obtain adequate local supplies of potatoes and other vegetables have so far been unsuccessful, and it is felt that greater persistence and encouragement should be devoted to this object. In spite of the fact that, as has previously been stated, a very large proportion of the inhabitants make their livelihood by raising flocks and herds, and that the quality of the local mutton is far above anything which is encountered elsewhere in India, none of the meat consumed by the troops is provided by local purchase. It is recognised that the primary motive of the Wazir, in raising his enormous flocks of sheep, is the sale of the wool down country. But the provision of sheep and cattle required for consumption by the garrisons, in a country where so much land is under grazing, should be an incentive to the maintenance of even larger flocks and herds, with the concomitant increase in employment and wealth. From the standpoint of policy the cheapest market is not necessarily the most advisable, and while accounting and audit will not allow the Army to assist by paying the higher price demanded for the superior quality locally raised sheep, yet, once it is accepted that a certain

amount of Government money has of necessity to be spent in increasing tribal prosperity, and thus producing a more settled state of affairs, it is suggested that here is a field for the profitable allotment of some form of political subsidy to attract military custom. The greater the degree to which we can directly interest the local inhabitants in the daily round of the provision of supplies to the troops, the greater will be the reluctance of those inhabitants to adopt or allow any course of action by which that routine would suffer interruption, and mutual benefit will result accordingly.

The construction of the roads has coincided with the arrival of the petrol age and has introduced the tribesmen to a speedy and comparatively inexpensive method of travel. In itself this is good, in that it has brought ever-increasing numbers into touch with civilization, and has widened their horizon to an astonishing extent. But travelling by car or bus has also induced a desire to own and drive the vehicles in question, and a large number of motor vehicles of sorts, which ply for hire and maintain bus services on the roads, are now owned and driven by Mahsuds or Wazirs. The employment, by the Post Office, of local Mail contractors, produced a somewhat Gilbertian situation during the recent disturbances. At this time, when it was considered to be unsafe for military convoys and other traffic to use the roads, His Majesty's Mails (including that most important weekly feature, the English Mail for Razmak) continued to run without let or hindrance. Once again it was thus emphasised that the more we can draw the tribes into active participation in the routine of administration, the more reliable that routine becomes, and the more it is to tribal interest to maintain an atmosphere of peace and security in which that routine can be maintained.

So much for the outward and visible economic advantages which have accrued directly to the tribes from the development of our frontier policy. What indirect and invisible results of that policy may be in process of development it is difficult to estimate. Indeed, to do so would involve a study of the economic and psychologic influences which, throughout the whole course of history, have been exercised by the building of roads, and the improvement of communications and intercourse generally, between nation and nation. The road system in tribal territory has not yet been completed. Even when the main system of motor roads has been built, there will remain a large and useful degree of improvement to be effected in the development of

subsidiary roads and tracks which will link up with the main roads. The completion of the road system will bring an extension of that control which is the basis of peaceful development, and the economic benefits to the local inhabitants which are in evidence from such roads as have already been built will continue to increase.

It may be said that this will cost money, but is it not better to invest money in roads than in frontier campaigns? It may be of interest to quote the views expressed by Lord Roberts on the subject in "Forty-one years in India." Speaking of the frontier he says, "We must have roads. . . . they cannot be made on short notice and every penny spent on them now will repay us tenfold hereafter. . . . there are no better civilisers than roads." It is therefore contended that the basis of the economic development of tribal territory must be the continued development of communications—roads and railways.

#### 4. *Possibilities of Economic Development.*

Economists tell us that income and wealth come either from commodities produced or services rendered. Taking these in their order how, firstly, can the commodities which tribal territory produces be increased in volume or variety?

Many countries—our own is an example—have been enabled to support a population far greater than could be maintained by the products of their own soil, by their gradual evolution from agricultural to industrial nations. But this process of industrialisation has normally only been rendered possible by the discovery of local mineral deposits, and in some cases, in addition, by a favourable geographical position in relation to possible markets. It cannot be said that the frontier districts have any great potentialities in this latter direction, but mineral deposits may possibly exist, and for these there would undoubtedly be found a market. But before any development can be hoped for, definite and accurate information as to the mineral resources of the country must be made available. An exhaustive and thorough survey should therefore be carried out as soon as possible of as much territory as is accessible. Such interest as has hitherto been displayed in this matter has been too spasmodic and un-co-ordinated to be of great value or authority, though results have admittedly been discouraging. Pending such a survey, speculation on what might turn out to be a most important line of development must be deferred, and exploitation of mineral deposits can only be mentioned as a future possibility.

It is therefore necessary to turn to such resources as are actually in existence and to consider whether, and by what means, they can be expanded and improved. First among these, in order of importance, is the land; and the land has to be considered from the standpoint of the grazier as well as from that of the farmer. As far as the farmer is concerned there is no doubt that, owing to the mountainous and stony character of a great deal of the country, there is a very definite limit to the amount of ground which it would ever be possible to bring under cultivation; but that limit has, up to the present, by no means been reached. The bulk of the cultivated ground is what is known as "Kach" land, that is to say, land in the river beds, where the valleys broaden a little. The streams which run down even the more important of these valleys are normally quite small, but, immediately after rain storms in the hills, they come down in spate with such violence that considerable damage to the cultivated lands in the valleys is often inflicted. After any one of these spates it is quite normal to find that the main channel of a stream has changed from one side of its bed to the other. If the streams could be controlled and kept within reasonable limits it is estimated that the "Kach" lands could be increased by at least fifty per cent. in area, and very possibly by more. But the task of imposing this control, though by no means impracticable, is beyond the resources of the local inhabitants. The Scouts' gardens at Jandola show the method by which the problem can be tackled. Here there have been built embankments of stones taken from the river-bed itself. These embankments are held together and strengthened against the almost unbelievable force of the river, when in spate, by wide-meshed nets of stout gauge wire which, in turn, are anchored to iron stakes firmly driven into the ground inside the embankments. These embankments have defied the fiercest spates to which they have been exposed. It is believed that this method of protection against erosion could be extended, in time, up and down the greater part of a multitude of valleys, and that by this means an enormously increased acreage of cultivable ground of high grade could be reclaimed. The stones are there and the labour is there. Expert supervision and encouragement, and the provision of the wire, are all that are required.

There are many other areas, which at present produce a poor crop, where the only irrigation is the annual rainfall. It is not that there is an actual scarcity of water, or that the annual rainfall is



inadequate. But when the rain comes down it does so with great violence for brief periods, and owing to the nature of the ground, the water quickly runs off, to add to the gathering spate in the nearest nullah, which forms the natural drain to the particular area under consideration. Improvement is a question of the control and distribution of the available water—in other words of irrigation. But it is not considered or suggested that any large measure of control could be centralised from any one spot. The problem requires to be approached in detail and the possibilities of conserving the rainfall in each valley, or group of valleys, need separate consideration. It is, however, certain, that every successful effort to hold up the rainfall in the higher valleys would lessen the spate damage lower down, and provided an equitable distribution of the water thus collected could be arranged, there appears to be a case for the building of a big series of reservoirs of moderate size throughout the country.

In considering methods of increasing the area of potentially cultivable ground, it is necessary to remark that there are several comparatively large tracts which have been under crops in the past but which now are lying fallow on account of some dispute as to ownership. Pending a settlement on this point neither side is allowed, either by Government or the rival claimants, to cultivate the disputed ground. Some of these disputes have been going on for years and, owing to lack of care, the areas in question are steadily deteriorating. It is considered that every endeavour should be made to arrive at a settlement in all cases of disputes as to land-rights or ownership, in areas which are under our control. Even if we have to produce a *douceur*, in order to conciliate the party which loses the day the money will be well and profitably spent towards the attainment of the ultimate object in view.

Given then that a greater quantity of land could be brought under cultivation, attention must also be given to the improvement of the quality and quantity of the crops which are produced per acre. Such improvement could only be effected as the result of expert study and local knowledge. It is therefore suggested that experimental farms should be established, by Government, at suitable localities, under protection of the local tribal sections. Needless to say, as great a proportion as possible of the staff employed at these farms should be local inhabitants, and the younger the men so employed within reason, the better. At these farms, which should combine

tuition with experiment, various types of seed should be tested for suitability in view of local conditions, and different types of new crops, which it might be possible to introduce into the district, should be experimented with. At the same time experiment and tuition could be arranged in fruit, poultry and dairy farming, in bee-keeping, and in other profitable side-lines which will suggest themselves to the agriculturist.

Nor need the well-being of the shepherd or herdsman class be neglected, for it would be quite possible, in connection with these Government farms, to introduce better types of cattle and sheep for breeding purposes; and the farms themselves should become the Headquarters of a local service for the study and remedy of those diseases which affect the local flocks and herds. A good type of hill pony could also be introduced for stud purposes for free service to approved local mares. Improved camel breeding and the treatment of those ailments which affect this somewhat unpleasant, but immensely utilitarian animal, should also centre round these Government establishments, which, it is considered, would serve a most important purpose, and would be greatly appreciated, once the initial suspicion, which their inauguration might arouse, had disappeared.

One other point emerges in connection with the improvement of the economic position of the farmer, namely, the provision of a good fertiliser in large quantities at very cheap rates. The land available for cultivation, through its limitations in area, calls for the fullest use of fertilisers, and plentiful supplies of these, at prices within the limited capacity of the local pocket, would be an undoubted boon. Large quantities of litter, even now, are regularly available from the Military and Scouts' posts, but at present this is practically all destroyed by burning because no arrangement can be made for its delivery to the local farmers. This is a comparatively small point, but it may be worthy of notice, as it is from such small matters that great goodwill can be built up,—and in an atmosphere of goodwill many things can be effected which would otherwise be impossible.

Improvement to the lot of the shepherd and of the herdsman has been referred to in connection with the improvement of his stock and the treatment of their diseases. It would also help him considerably if surface water were conserved, and underground supplies exploited, in the grazing areas, and if permanent tanks and drinking

troughs were built. Incidentally, such measures would also be of considerable military value.

So much for the land.

The next of the available local resources to merit attention is undoubtedly the timber. Mention has been made of the enormous quantities of locally grown wood which are annually consumed as fuel. In addition to this, there is a considerable trade in wood between the Wazir and Mahsud and Bannu, Tank and Dera Ismail Khan. This trade in timber is also to be found in many other districts along the Frontier. But, unfortunately, indiscriminate and wasteful felling takes place in the forests, with no compensation in the form of planting, and the result is that the forest belt is receding in an alarming manner which should be arrested at the earliest opportunity, if serious and permanent loss to the wealth of the country is not to occur. Afforestation, then, opens another and a great field of employment and economic benefit for the tribes. Here again the first requirements are experiment and experience, and here again it is all-important to overcome tribal suspicion and to obtain co-operation and good-will before much can be done. But a start can and should at once be made in those areas which we control. Suspicion can more effectually be overcome by practical demonstration of the sincerity of our intentions than by argument. The reactions of forest protection and of re-planting deforested areas would be beneficial on the climate and on land conservation alike.

It is also considered that the possibility of terracing the hills at a suitable altitude for olive cultivation should be examined. The country and the climate in some parts bear a distinct resemblance to the conditions which obtain in the olive producing districts of Palestine. In the latter country immense labour has been put into the layout and maintenance of terraced olive groves on what would otherwise appear to be stony and barren hill sides. It is obvious that the results must be profitable—otherwise the Jews and Arabs, of all people in the world, would not devote their time and labour to producing them.

Beyond those already mentioned, the natural resources of the country are few and almost inconsiderable. There are, however, possibilities of obtaining economic benefits from such resources as exist by other methods than by merely effecting an increase in the

quantities produced. These possibilities lie in the direction of the introduction of local industries.

#### 5. *Local Industries.*

Mention has been made of the possibility of introducing such village occupations as dairy, fruit and poultry farming. But in view of the fact that one of the main resources of the country is the raising of sheep and cattle, it is obvious that the sale of wool and hides must figure as an item of importance on the credit side of the tribal budget. These products are mostly disposed of in their raw state, in the markets of those towns which lie nearest to tribal territory on the main trade routes, and it is notorious that the producer of raw materials receives little for his goods in comparison with the profits which are made by the manufacturer and distributor. Would it not be possible to open small factories, under Government auspices, for the local manufacture of certain forms of woollen goods—country blankets and the like—and for tanning the hides and making leather articles? Hydro-electric power for operating the necessary machinery should be forthcoming from the streams and rivers of the country, though these are not believed to be of sufficient volume to produce adequate electric power for any very large schemes. Similarly, if power-operated saw-mills could be inaugurated at suitable localities, the tribesman would have boards and battens to sell, instead of logs roughly shaped by the expenditure of a tremendous amount of manual labour.

It is also possible that carpet or rug manufacture could be introduced, and the silk worm should at least be given the opportunity of showing whether some of the valleys are not suited to his particular requirements. It is at least certain that mulberry trees are to be found in many areas.

#### 6. *Employment.*

We have, up to the present, been considering how some improvement in the economic status of the tribes could be effected by an increase in the volume and variety of commodities produced. It remains to discuss the provision of some further "field of employment for the rising generation of tribesmen." This, in other words, refers to those "services rendered" which economists describe as being the second source of income and of wealth.

It is obvious that the construction and maintenance of an efficient system of communications will, in itself, provide direct employment

for a considerable number of the inhabitants, particularly if the importation of labour is discouraged. But, more than this, these same communications will remove that inaccessibility and remoteness which formerly held the tribesmen almost a prisoner in his own country. Contact with the outer-world, and facilities for travel, will render it possible for the overflow of surplus labour from the frontier districts to find its level in the wider markets which are now being brought within its reach. In the same way each increase in the acreage of cultivable land; each improvement in the production of local resources; and each successful step towards the establishment of a local industry will bring a correspondingly increased field of employment in its train.

There remains the somewhat delicate, though oft-discussed, question of direct recruitment into Government service—into Frontier Constabulary, Militias, and the Army. All these services require fighting men, and there is no doubt that the frontier tribes are essentially fighters. It also cannot be gainsaid that we are still recruiting certain classes, for political reasons, whose fighting qualities, if they ever possessed any, have sadly deteriorated. Whether or not this policy repays us in the ultimate result is not within the power of the ordinary individual to decide, but at least it can definitely be said that in these days of financial stringency, as far as Army funds are concerned, we must limit ourselves to securing the best value obtainable for the money which we have at our disposal. It is often advanced, as an argument against their recruitment, that “trans-frontier” (which really means “trans-administrative-border”) men have proved unreliable in the past, and have produced an unduly high percentage of desertions. But the knowledge that once he reaches his native hills, he is away from all Government control and beyond the reach of the long arm of the law, must have counted as the determining factor in inducing many of these deserters to disappear. It is therefore argued that as our frontier policy develops and control is extended, so recruitment should be opened to suitable and representative tribal sections, with due regard to the maintenance of a correct proportion in numbers.

At the present time, the tribe which is most markedly in a state of transition from being entirely uncontrolled to being thoroughly under control, is undoubtedly the Mahsud. Leading men amongst

this hardy and virile race have publicly given it as their opinion that, once the Razmak-Wana road has been constructed, and the very heart of their most populous centres thus brought within easy marching distance of our mobile columns, "you will never hear of the Mahsuds again." It is hoped that this is not so. On the contrary it is hoped that a change of allegiance will result in our hearing great things of the Mahsuds in the future, but in our own ranks and not in those of our opponents. It is also probable that the Mahsuds feel the economic pinch, which the changing conditions produce, more than any other tribe.

The case of the Mahsuds, however, provides many examples of the complications which beset proposals to enlist the so-called "trans-frontier" Pathans into the various armed or other forces which the Government maintains. Now the Mahsuds have been previously recruited into the Army; but only at a time when their country was inaccessible and the tribe not under control. Their record may be summarised as follows. In action, both in France and in East Africa, they were magnificent. Desertion in the field was unknown among them. In India, on the other hand, they suffered from jealousy and intrigue on such familiar subjects as promotions, and, being of hasty and violent disposition, were apt to give vent to any sense of injustice in an extreme manner, which more than once culminated in a successful murderous assault on their superiors. Being very ignorant, and somewhat of a class apart, they were a comparatively easy prey to rumours and to skilful propaganda. They were therefore put down as being dangerous and unreliable, and were accordingly mustered out of the service. It is felt that they were unfortunate in being subjected to the exceedingly severe trial which the period of the Great War entailed, while they were still comparative strangers, and while their country was as yet "beyond the pale." It is felt that the judgment on them in comparison with that passed on, say, the trans-border Afridis, savoured somewhat of severity. But, be these things as they may, we cannot, having brought their country under our control, continue indefinitely to treat the frontier tribes as our enemies, and the time will come when we shall be obliged to open, to their younger men, that field of honourable employment which service in the forces of their suzerain power affords. In the case of the Mahsuds has not the psychological moment now arrived? As to the response which would be forthcoming there can be no doubt. The subject has been

put forward in many successive petitions which they have addressed to the Political Authorities during the past few years.

Taking the Mahsuds as an example, on account of the state which the development of our relations with them has reached, it seems relevant to put forward some suggestions as to the methods which might with advantage be employed, once the decision to re-open Government service to them, on any considerable scale, has been reached. Similar methods suitably modified, might be applicable elsewhere later on. It has to be remembered that culturally, like all the frontier tribes, the Mahsud is extremely backward, and his knowledge of the outside world is extremely meagre. It is therefore felt that it would be too much of a breaking-away to take recruits off to some distant place in India, among completely strange surroundings, for their training.

The following plan is therefore proposed :—

Let there be formed at Razmak a Mahsud Training Company, under a selected British Officer, with a suitable staff of Pathan or other Muhammadan instructors. Into this company let there be enrolled, for a period of two years, some two hundred Mahsud lads of between 16 and 17 years of age as a beginning. The proportionate numbers which should be accepted from the various tribal sub-divisions should be settled after discussion with the Political Authorities, and the latter should also be consulted most closely when the actual selection of individuals came to be made. During their two years in this training company the cadets should be provided with a modified uniform and equipment, and with rations. They should also receive an allowance of from Rs. 5 to Rs. 10 per month. The subjects in which instruction should be given should include :—

Drill and physical training.

Handling of arms.

Weapon training.

Urdu, as a spoken tongue.

Roman-Urdu, as a written language.

Selected technical subjects, *e.g.*,

M. T. driving and running repairs.

Carpentry and other handicrafts.

Masonry and building construction.

The use of such machinery as is locally employed by  
Sappers and Miners.

Farming in its various branches,	}	in conjunction with the proposed local Government Experimental Farm to which reference has been previously made.
Cattle raising,		
First aid,		

Towards the end of their two years course the cadets should be offered the choice, according to the promise which they have displayed, between various types of Government service; or should they so desire, they should be allowed to return to their homes and revert at once to civil life or to emigrate and seek their fortunes in the larger world outside. The branches of service which might be opened to them, on the satisfactory completion of their two years course, might include :—

The Indian Army in its various branches.

The Frontier Militias.

The Frontier Constabulary.

The Armed Police which are maintained in various Districts.

The Police Forces of the larger cities.

The Forest Service.

Etc.

The basic idea would be to get hold of the raw material while young and malleable, and to give it a practical training among familiar surroundings, where it would be in touch with its family and its home. During the two years' cadetship the training should aim at preparing the young tribesman, either for entry into Government service, weaned from his "jungliness" and suspicion, or for return to civil life with his horizon broadened, better prepared to play his part in the struggle for existence, and in either case a confirmed adherent of the controlling power. Cadets who subsequently entered the regular army would only need a modified course at a Training Battalion, if any at all. Semi-military and semi-educational in its characteristics, and of great potential value politically, the cost of maintaining a cadet company of this type should fall in shares upon the departments of the Government which are interested.

One warning is perhaps necessary. Any endeavour or tendency to change the Mahsud's fighting characteristics to those of the pre-



cocious "babu" type should be shunned like the plague. Any education in the Training Company beyond the use of Roman-Urdu, should be left in the hands of some respectable and enlightened Mullah. This, besides being to our purpose, would tend to remove suspicion from the Mullah-class as a whole, and to bring about a better feeling towards us among those somewhat reactionary but extremely influential gentlemen.

#### 7. *Other Reactions.*

The subject set for this essay asks for a discussion of the possibilities of economic progress among the tribes. It is worth while considering whether it is possible thus to isolate one aspect only of the life of any community, and to subject that aspect to independent experiment and change. Our frontier policy involves the opening up of tribal territory and the imposition of some degree of control, without, it is true, an undue degree of interference in tribal affairs, or any attempt to destroy the tribal system. But the increasing contact between the tribesman and the outer world which must ensue from the development of our policy, together with the results of any measures which we may initiate for the betterment of tribal economic status, must have reactions on the cultural and every other phase of tribal life. The economic problem is therefore only an integral portion of the far larger subject of the whole future of a group of peoples. A full realization of this fact will enable us to approach the problem with becoming seriousness, and to devote to its solution adequate consideration and resources.

Statistics are always apt to be wearisome but the following are given as an illustration of the manner in which contact with civilisation must affect a backward people, and may even, in time, effect a considerable modification in their national character. The figures are taken from Administration Reports of North Waziristan, and contrast the growing use of one of the amenities of civilisation on the one hand, with the decrease of crime which the imposition of control has effected on the other :—

(a) Number of cases dealt with in civil hospitals in North Waziristan :—

			In-patients.	Out-patients.
1925	..	..	178	8,211
1926	..	..	248	12,953
1927	..	..	342	28,259

(c) Number of criminal cases dealt with by the Political Authorities in North Waziristan :—

				1926-27.	1927-28.
Murders	..	..	..	64	39
Robberies and dacoities	..	..	..	40	6
Thefts	..	..	..	141	74

The moral of these figures is not difficult to discern.

### 8. Finance.

It must be admitted that the proposals which have been put forward in this essay would, if acted upon, entail the expenditure of a considerable amount of money. But it must be remembered that the ultimate end in view is a strong and peaceful frontier, with efficient communications, and a loyal and prosperous population. The attainment of this end well merits the expense involved, which, it is felt, would be more accurately described as an investment than a mere expense. The money required would not total more than a fraction of what has in the past been spent on expeditions and expedients for keeping the frontier quiet. An earnest of the eventual return for the present policy is already visible in the immunity which the settled districts have, of recent years, enjoyed from raid and rapine. The tribesman at large, however, still invests his limited capital in rifles and ammunition, though it is palpable that in Waziristan at least, where the development of our frontier policy has been most marked, a doubt is beginning to be felt as to whether, provided security is ensured by the imposition of control, to continue to do so is worth while.

Perseverance in the present policy, therefore, holds out a hope of a considerable degree of, if not of complete, disarmament of the tribes by consent. The result would be the liberation of a tremendous amount of capital, now sunk in ever-deteriorating firearms of depreciating value, for fruitful investment in the improvement of the land or the increase of stock, and a corresponding improvement in economic conditions.

### 9. Conclusion.

The general lines then, on which it is believed, that the economic development of tribal territory can be assisted, and a field of employment found for the rising generation of tribesmen are as follows :—

A sufficient degree of control must be imposed to ensure the existence of a state of security. On the other hand the tribal system must

be maintained and upheld, and there must be no undue interference in purely tribal affairs.

Tribal country must be opened up by an efficient system of communications which will remove inaccessibility and which, by inducing contact with civilisation, will enable the surplus portions of the population to be absorbed in the greater labour markets of the outside world. As far as we are able we should assist the tribesman to become better equipped to take part in the economic struggle in which he has become involved.

Measures must be initiated to increase the amount of land under cultivation, to control the water, to increase the variety of crops, and to improve and increase the flocks and herds. Afforestation and conservation of the existing forests must be taken in hand.

The possibilities of the establishment of local industries must be examined and exploited, and, finally, recruitment into Government service must be systematically prepared for and, in judicious stages, opened to the tribes.

The task is far from easy. It is to be hoped that its very difficulties will prove an incentive to those to whom it may fall to carry it out.

## THE ARMY, THE NATION, AND THE MACHINE.

### PART II.

By

LIEUT.-COLONEL F. DICKINS, I.A.O.C.

In part I of this article an attempt was made to emphasize the necessity for co-ordination between the army and the nation in order to achieve success in war. In this, the second part, the interlocking of army requirements with industry will be sketched and an attempt made to show the desirability of awakening the Army's interest in the machines on which it is dependent.

Before we explore this theme in any detail, it is first necessary to accept two axioms:—

- (1) The day of individualism is past.
- (2) The power of the machine is paramount.

An axiom is a self-evident fact. In case these two facts are not self-evident to all who read these pages, I would invite their attention to the modern tendency for industry to unite, or at least to control, its activities by means of combines, mergers or cartels; to the gradual elimination of the small shop, the small factory, the small coal-mine, and so forth; in short, to the gospel of "rationalisation" which is being preached all over the world. To a certain extent this process has been applied to our own army organisation; instead of the various branches and departments of the army competing with one another in the open market for their needs, a great advance has been made in the centralisation of the provision and production of army requirements. That is to say, combination has taken the place of individual effort.

As regards the second axiom, it is enough to say that practically everything of which man makes use is the product of a machine, down to tinned food and canned music! In civilised nations the machine has almost completely usurped the functions of the handicraftsman. The animal and vegetable kingdoms still contribute to man's food supply, but it could never be brought within his reach without the aid of the machine. And who can prophecy but that within the next thousand years synthetic food will not come to the aid of a world population so vast that it can no longer be supported

by the animal and vegetable food which the world will be then capable of producing ?

Novelists, essayists, philosophers, scientists—they all agree. In the most unexpected places you will find references to the relentless grip of the machine. Listen to Aldous Huxley—of all people. He refers to “.....the mechanisation of industry (and along with industry, of leisure, of pleasure, of domestic life) which is taking place all round us....Mechanisation has affected us profoundly, not only as political beings, but also as suffering and enjoying beings, even as thinkers. There is no arguing with the machine ; either you do not set the thing going, or else, if you do, you adapt yourself to its rhythm and obey the literally iron laws which it imposes.” It were well for the army could it but realise how much it is dependent on the “iron laws” of the machine. What does Mary Borden say about it ? “The machines, if they had their way, would probably keep a few men to serve them because of their grey matter, but not more than absolutely necessary.” And later on “Innumerable engines of destruction had been waiting, bursting to do something, and had at last broken out of their factories and forges....they had had everything their own way during the war.”

Fanciful, perhaps, and written for literary effect ; but there is a grim sub-stratum of hard fact beneath the picturesque language. These two authors possess more than their due share of grey matter.

Finally, I find in a lecture delivered to the Aldershot Command the following. “If I may venture to say so, they” (i.e., the Commanding Officers) “must acquire machine-mastership as opposed to horse-mastership.” The lecturer was, of course, referring more particularly to the mechanisation of transport.

But I would apply the term “mechanisation” in a far wider sense. The army is mechanised in that it employs machines to fight with—machine-guns, to quote one instance only. And it is mechanised entirely in that it depends on the machine for the production of all its equipment and clothing ; of all its ammunition and lethal weapons. It appears somewhat fantastic, therefore, if the soldier neglects the existence of those machines and that vast industrial organisation on which he is wholly, entirely, utterly dependent for his utility as a soldier.

One of the first essentials in modern war is adequate and timely supply. At the same time, one of the greatest difficulties that has to

be overcome is how to build a bridge across the gap that lies between the army's normal peace requirements and its vastly increased requirements during war. I calculate that in pre-war days the output of new machine-guns to replace the normal wastage in the British Army at Home was about 40 a year. Within the first year of war some 2,800 were required "without delay" to meet a vastly increased army and increased scales of issue. In the battle of the Somme 2,800 machine-guns were lost in a fortnight. That is to say, about 70 years' normal production. The peace output of army boots in England was about 245,000 a year. During the war, an average of 10,000,000 pairs were produced annually for the army, or about 40 years normal production.

How was it done? Who knows? Who cares?

Let us take a round of '303" ammunition, which is produced in India at the Kirkee factory for 1½d. a round. There are about 25 different basic materials in its composition, and in its manufacture some 60 other materials are employed. Half the world has been laid under contribution for its manufacture; over half the world men have sweated and toiled and dug and hammered, machines have whirled and thudded and thundered, ships have struggled through stormy seas, trains have roared along their metals, scientists and engineers have calculated and organised and experimented, human flesh has sold itself to the machine—all in order to produce this 1½d. little article. Copper from Australia and North America, zinc from North America, nickel from Canada, manganese from India, lead from Burma, antimony and aluminium from North America, tin from Malaya, glycerine from England, shellac and beeswax from India, methylated spirit from the Indian Forest Department, aniline dyes from England (a whole series of other substances and trades being involved), mercury from South America, sodium nitrate from Chile, potassium chlorate, sulphide of antimony, sodium hydroxide and calcium carbonate from England (all the intricate ramifications of a vast chemical industry being laid under contribution), sulphur from Japan, Sicily, or a gas-works at home, mineral jelly from Burma, acetone, soda-ash and cotton waste from India,—these are some of the ingredients required for a round of ammunition. To produce it are required in addition, coal for the furnaces, liquid fuel for annealing, soft soap for lubrication—tons and tons of it; the various acids, chemicals and oils for cleaning components before certain operations,

the various grades and types of steel required for the various tools and gauges—altogether some 60 different items.

“Romance brought up the 9·15.” And romance manufactures some 60,000,000 rounds of rifle ammunition every year in India—not that the dull dogs of the Staff of the Master-General of the Ordnance are particularly romantic!

Take the time-fuze for a shrapnel shell. Within the fuze are over 200 gauge points; over two hundred different distances or dimensions have to be gauged, some of them to within half 1,000th of an inch. Or take the body of a rifle which, after its first drop-forging into the rough shape of a body, has to pass through some 250 operations before it is a finished article. The rifle itself has to be submitted to the delicate attentions of some 2,000 gauges, and these gauges themselves probably represent a value of about £5,000. The master-gauges in some instances will measure accurately to the 5 millionth part of an inch, and one alone may cost anything up to £150.

If we apply, *mutatis mutandis*, a similar concept to all the other thirty thousand items which have to be provided for the army by the Master-General of the Ordnance, a faint idea may begin to dawn upon us that there is in existence, throughout the world, a vast series of organisations, some closely interlocking, some widely divergent, that serve the needs of the army. From the expansion figures, quoted earlier, for boots and machine-guns, it will be seen that in war these organisations will be called upon to increase their productive capacity forty, seventy—perhaps one hundred fold.

The organisation of a large factory or industry is a delicate thing, easily thrown out of gear. The sudden and enormous expansion of any such organisation is a difficult, but still calculable affair, and is a direct function of the normal organisation. Any measure, any mistake, which involves the derangement of an organisation existing in peace, may seriously affect its capacity for expansion in war, whether it is an ordnance factory or a private firm. If the machines are overworked, delay and unreadiness for war are entailed; if the machines are starved, skilled labour drifts away, and will not be whistled back at a moment's notice when war breaks out.

There is, therefore, ample justification for the plea for a more general and more intelligent recognition of the part that the machine plays in modern military life, and for at least a nodding acquaintance

on the part of all soldiers, but especially of staff officers, with the limitations and capacities of the machines and organisations which are at their disposal for their war needs. The army has been well (and painfully) drilled into a strong "financial sense." The burning question of the day would appear to be—"Where are the funds to come from?" At least equally important would appear to be the question—"What does the machine think about it?" One wades through files three inches thick bickering about the source of funds or, oh, blessed word, "financial repercussion." And down below we may have a machine starved for work, with skilled labour out of work and resentful, and another machine overworked, behindhand with its job, and a unit short of some vital item of equipment. In either case, on the outbreak of war there will be confusion, delay and danger.

I do not suppose for a moment that a unit, which purchases articles of clothing or equipment through other than the recognised official channels, has any idea that by so doing it jeopardizes production in war. But so it does. This, however, is rather a question of "provision," and will be explained in a third and final article.

There are many motor car owners who know little, and care less, about the machinery of their car. There are others who are never satisfied until they have learnt exactly how and why the wheels go round. There can be no doubt as to which type of driver will have the bigger garage repair bill, and which car will be ready for use at the shortest notice. The analogy should not be stretched too far, but, broadly speaking, I think the comparison is apt. Moreover, the study of the power of the machine, a comprehension of its ingenuity, a knowledge of its capacity, should be of interest to any one of any education. The sight and sound of a large shop, with the perpetual thunder and roar of the machines, is at first irritating and confusing; but to follow up the operations through which articles, such as fuzes, rifles, or ammunition, pass during their production, cannot fail to interest, and the interest thus awakened invests the article with a new dignity and imparts a new relative value to its place under the sun. We are no longer dealing with a dull, inanimate thing, of less interest to us than a potato, but we are dealing with the product of immense human labour, organisation, ingenuity and tireless patience, and so we can begin to view the machine with more respect, and to realise our dependence on it.



There are men who boast—"Oh, I never read the newspaper," or "I never read a novel," and for some inscrutable reason seem to be proud of it. There are many more to whom a machine is incomprehensible, distasteful, contemptible; in their eyes the men who attend the machine are scarcely worthy of ranking as humans. By this attitude they condemn themselves. It is they, not the machines, who are outside the pale. It is, therefore, a matter of opinion, whether the education of a staff officer can be considered as complete unless he has visited at least one large factory, and learnt how the familiar articles for whose disposal and application he may be responsible are produced. Further, it may not be waste of time, if, when the opportunity occurs, every soldier should take that opportunity of investigating how the weapons and equipment which are his every day companions come into being. Having done so, he will be forced to acknowledge that, not he, but the machine is the master.

There is the other side of the picture; of course, there always is. It is equally important for the machine-minder and the machine-organiser to realize to the full that they are working, not in their own interest, but in the interests of the army. Sometimes they are apt to forget this not unimportant point! There always has been a certain degree of scarcely veiled antagonism between the "fighting soldier" and the supply services. One only has to read military history to realise how too well-founded that antagonism was. As long as there remains any trace of any such mutual mistrust, all hope of real co-ordination must be abandoned, and with it must go a percentage of the chances of success in war. A wrong psychological atmosphere is created, which is bound to react unfavourably on the development of the war-machine. A little delicate investigation will prove to any one who cares to undertake it, that there still exists in the Army in India certain singularly naive ideas regarding the laws of supply and demand. The necessity for so co-ordinating and interlocking the functions of all services in peace that war expansion becomes automatic and certain is not envisaged. The water-tight compartment school is not yet obsolete; let us hope it is obsolescent.

How far the idea of educating a whole nation, including the army, in the direction outlined in these two sketchy articles has been prosecuted in America, will be patent to any one who reads the *American Ordnance Magazine*. Over there, they understand. While in M.

Clemenceau's last book we read :—" One of the chief lessons taught us by the Great War is that Material plays a much more important part in the twentieth century than the professional soldiers before 1914 had supposed. Well, this lesson, so dearly bought, is nearly forgotten." And the ideas of a German, General von Seeckt ? " The armies of the future will not find it profitable to accumulate stocks of material that very quickly becomes out of date. It will be enough to construct a few prototypes, and to arrange for their mass production by organizing the change over of factories from peace work to war work. But this naturally requires subsidies from the State."

If, then, material is so vitally important, so too must be the machine.

*(To be concluded.)*

## A JOURNEY ENFORCED—A BORDER EPISODE.

By

MAJOR E. L. FARLEY, M.C., R.E.

## I.

In May of this year I was ordered to see what I could do about getting photographs of Baluchistan suitable for the decoration of India House. Amongst others I was told to take some of Afghanistan from the top of the Khojak Pass. The Khojak range extends roughly north and south some ten miles from the border and commands the nearer parts of Afghanistan from an eminence of some 4,000 to 5,000 feet.

On getting these orders, I studied all such views as were obtainable in Quetta, and found that there was practically nothing that any photograph showed of the area more than, say, five or ten miles beyond the border; this is due to the almost perennial haze hiding the distances. Occasionally clear days are found, but not usually as late in the year as the early summer, and I had eagerly sought for such a day in order that the required photographs might be taken. I had made arrangements for a careful watch to be kept so that news of clear weather could be telegraphed to me in Quetta. Had such a clear day materialized I had intended to take my wife to Chaman with me.

In the course of my duties I had to go to Chaman on the 3rd of June and was intending to return as early as possible on the following day. I had considered taking my wife, but there had been a slight rise in the temperature, and this had rather dissuaded her, since an increase in temperature invariably means, at any rate temporarily, an increase in haze. Leaving Quetta early that morning by car I reached the top of the Khojak by about ten o'clock, and was astonished to find the view below and over the Afghan plain clearer than I had ever seen it. The whole country was laid out as an enormous bowl whose length from north to south could not have been less than about one hundred and twenty miles, while its width from my feet to the farthest peaks on the Afghan side must have been something in the neighbourhood of eighty. The general impression of this bowl was gray shaded

off to a bright old rose in the distance, rimmed with black hills, rocky and peaked ; in the centre, as it seemed almost at one's feet, the tiny bright green oasis which was Chaman. Some idea of size can be got by remembering that although Chaman appears almost directly beneath one from the top of the Khojak, it is some four thousand feet below and at least fifteen miles away. In the foreground the mountains' steep slopes fall rapidly ; there are no cliffs, but there are many shale outcrops with the black and white of quartz and limestone appearing here and there. The general impression being one of essentially rugged hills which have lost a certain amount of their precipitousness by the denudation of ages. Steep gray spurs merge into more rounded foothills below, and, as the slopes become less steep, grasses begin to appear. Lower down, the foothills change into linked spurs of shingle on which, somehow or other, the local inhabitants have managed to grow crops. These, at the time of which I am writing, were just beginning to ripen, and at the higher levels were still green, while lower down they had already begun changing to yellow. This yellow merges into gray in the distance where the plain starts flattening out. Here and there infrequent villages can be seen as little dark dots in the drabness. The gray in due course turns to rose as the cultivated area changes to the sand of the desert of southern Afghanistan. Some twenty miles away a line of isolated small rocky hills crosses the bowl from north to south. On one of these is the Afghan fort of Spin Baldak, which is there, I suppose, to keep a watch on our own little Frontier garrison at Chaman some five to six miles nearer Home. Finally, to the north-north-west, the bowl is rimmed with a serrated series of detached hills of considerable altitude blocking out the rose horizon—black, grim, forbidding. How I regretted not having brought my wife. I had never seen the view so clear.

The road from the summit of the pass swings away to the south, or left hand, quartering down valleys and spurs and soon gets out of sight behind one of the main off-shoots of the ridge. After some three miles it swings back under itself, and can be seen again in the near neighbourhood of Old Chaman, which lies in the foothills almost directly under the summit of the pass—seven miles away by road but only two to three as the crow flies. Further on, the road straightens out again on to its general alignment, which is roughly at right angles to the Khojak range, going straight down the long slopes which

eventually end near Chaman. This last eight miles between Chaman and Old Chaman accounts for some fifteen hundred feet of height.

Having got to Chaman in due course, I managed to get through most of my work that day and circulated the news pretty freely that I would return early on the morrow. This information was necessary for my own folk who work at various places along the road and also in Chaman. As it turned out, however, owing to various delays I did not actually leave Chaman until about 2.45 on the afternoon of the 4th. During the course of the morning I had met Captain Frere; he was in drill order and had on a very nice pair of field boots—of which more anon. My peon had told his servant that I was due to start for Quetta during the afternoon, and there was some sort of an understanding that one of us might possibly pass the other on the road back.

On leaving Chaman I was accompanied in the front seat of my car, an ancient Vauxhall, by a peon from my office, who also fulfils the functions of motor-driver for me. This fellow, Makhmud Khan, is an extraordinarily stout lad though he is not particularly conspicuous for brain. The back of the car was full of baggage, petrol cans, a shovel, rope and odd details of that sort. About half a mile outside the barrier shutting off Chaman from the road to Quetta I passed Frere also returning. His car was emitting clouds of black smoke and he was going extraordinarily slowly. While overhauling him I had intended to stop and see whether he was in trouble but, as I came up level, I saw that he had a lady with him in the car, and thinking that the black smoke was possibly due to his working on the slow running jet with too much choke—a symptom which would cure itself as soon as he started full throttle work—I went straight on instead of stopping.

Up the long slope towards Old Chaman my radiator boiled, as it invariably does. I stopped some five miles out and filled up with water. Frere was then a speck in the distance. Later on I stopped again where the road gets steeper; Frere was still further back. At last I got to Old Chaman and, just above that place, I traversed a cutting about six feet deep through a sharp little spur bounded on the south-east by a nullah about four feet below road level and about fifteen yards wide, which the road crosses on a built up causeway. Here, on the causeway, I suddenly came upon a barrier of large rocks across the road. The average size of these rocks would be about eighteen inches, but in the middle a sleeper had been put on top of them, and

the whole was reinforced by further rocks from behind, that is to say on the Quetta side. When I first caught sight of the barrier the car was doing between thirty and thirty-five miles an hour and was in the neighbourhood of twenty-five yards from the barrier. I immediately applied all brakes and the car eventually came to rest a yard or so from the barrier itself. Before the car had come to a standstill three men, who had been concealed either behind the spur or under the side-walling of the causeway dashed out on each side of the car, and jumped on to the running boards. My hands were seized on the steering wheel and Makhmud Khan's held in his lap, while another man on each side, also having leaped on the running board, pushed a rifle muzzle into each of our backs. A third on each side from a range of about two yards ran alongside pointing his rifle at our heads. It is a marvel to me that one of these third men's rifles did not go off; I subsequently discovered all these men to be extraordinarily careless with fire-arms, and am willing to bet that, while they were running alongside, their rifles were at full cock and their fingers were crooked round the triggers. I subsequently learned from the Medical Officer in charge of the Civil Hospital at Chaman that he usually has from three to six gunshot wounds every week, nearly all due to carelessness.

The car having come to rest I was told to get out, which I did, thanking my lucky stars my wife was not with me after all. Makhmud Khan was also dragged out on the other side. More men appeared and started removing baggage from the car with a great deal of shouting. I was immediately bound with a *pagri* with my arms behind my back and two men led me off some two hundred and fifty yards along the nullah where we sat down. Here I was questioned as to the possibility of another car following us, and I thought fit to deny the probability. The rest of the gang, later counted as being eleven in all, remained with the car. After a wait of fifteen minutes or so, the remainder of the raiders leading Makhmud Khan and carrying all the baggage from the back of the car, joined us. I was certainly relieved to see the baggage appearing, since it seemed to me that there could be no real personal animus about the attack if they were bringing along such heavy things as suit-cases, for which they could have no possible use and which, in themselves, would be very incriminating. Nevertheless, I was still, I regret to say, very much frightened, very worried as to what to do to prevent Frere falling into the trap, and frantically wondering what "A" should do now.

It was pleasing, however, to see the beer and bedding being brought along.

As soon as the other men had joined us there was a great deal of talk among the raiders as to what should be done and I was again questioned as to the coming of a second car. Before, however, they questioned me, they asked Makhmud about it and as he took a little while to answer the query, I was rather anxious as to what he would say, seeing that I had already denied having passed one. However, he, I am thankful to say, also denied having seen a car coming, and I was extremely relieved thereat. Had his answer been that another one would be coming along immediately, while I had denied having seen it, there might have been some unpleasantness! I later learnt that he had been questioned while on the road and had then also denied the advent of another car. Later on I also heard that during my absence from the road he had been told to get into the car and drive it into the nullah so as to wreck it. When he denied knowing how to drive, he had been asked whether he had not seen me doing so and whether he could not imitate me. He had then been made to get into the car to "go through the motions." This he apparently did; pressing the starter and leaving the switch off, then switching on and not pressing the starter, fiddling over the lamps and so on, but being careful always not to go through all the requisite actions at the same time. For this I was extremely grateful to him and also considerably surprised that he had had so much initiative and common sense! Later on I also learnt that the car had been put out of action by "bayonetting" the tyres, which I had not run more than a couple of hundred miles, having recently renewed them all round. This was sad news but it appeared that the flimsy "bayonets" would not penetrate the new covers and that, although one of them had been slashed, the tube was sound while there was a clean knife cut in one of the others.

Having joined us in the bottom of the nullah and after more talk, the gang started going through the baggage. Owing to my anxiety about the other car which might be coming as far as Old Chaman, I suggested to the raiders that such close proximity to the road did not make a suitable place for investigating the contents of my kit. To this they, to my surprise, agreed and decided to move at once. Such of the baggage as had been opened was immediately shut up again and they called out to one of their number, who was picqueting a small hill

near by, to come in. While the picquet was starting down, the gang with myself moved off down the nullah in an approximately west-north-westerly direction. Hardly had we gone a few yards when the picquet on the hill yelled out that another car was coming and the gang, with the exception of two men who remained with me, rushed back to the road.

The two remaining with me seemed to be rather decent fellows and when they found that I wanted to smoke, were kind enough to release my arms so that I could do so. After some twenty minutes a lady, who afterwards turned out to be Mrs. Frere, and Frere were brought down by the gang to the place where I was waiting. As I was wondering who the lady was, Frere went through the formality of introducing me to her. This seemed at the time to be a perfectly natural proceeding, but I have since wondered what induced him to go through with it. I feel convinced that it was the natural response to a desire to do something normal which would help to soothe his wife's nerves, which must have been considerably shaken at the capture. Immediately on the arrival of the Freres, the gang proceeded to question us all as to whether we were English, particular stress being laid on whether we were English as distinct from any other Europeans. Apparently French or Italian or anything else would not be satisfactory for them, and this gave me furiously to think.

## II.

As soon as they had been assured that we were all English, the whole party started in the direction of the border. We were rushed along down nullah beds, the gang being very careful to choose the deepest nullahs they could find. Every now and again he who appeared to be their leader would get up the bank, select the route and either we would cross into another nullah over a small intervening ridge or we would continue pushing down the one we were in. The idea of this procedure soon became apparent: the general direction we maintained was west-south-west, while the nullahs running approximately parallel to each other maintained an average direction of west-north-west. This apparently did not suit our captors at all, since it would have led them out to the border far too close to Chaman to be safe!

The raiders appeared to be somewhat frightened at what they had done. To minimise risks they had wanted Frere and me to put on *pagris*. It was only when I had explained that Europeans wore hats



to protect their soft heads, and that they would get sunstroke without, that they allowed us to retain our hats. None the less they insisted on our tying rough *pagris* over them. They also insisted on Mrs. Frere draping herself in a gray looking sheet to conceal her white "terai" hat and dress.

Shortly after our start we crossed the railway line, and I cheered up considerably since it reminded me that a train was due about there almost at any minute. I was on the point of telling Frere about this but realized at once that were I to use the word "train," even in English, while anywhere in the vicinity of the railway line, it would be almost certain that our captors would gather the meaning of what was said, although they apparently knew, in addition to Pashtu, only a very little Hindustani. Since it was very undesirable that they should get an inkling of the advent of the train, of which I appeared to be the only member of the party who knew anything, I kept my mouth shut. Going on down the nullahs we presently crossed the line again, and yet a third time, and, shortly after the third crossing, looking back we saw the train which had stopped in the neighbourhood of Sanzala railway station, which is by road some ten miles from Chaman. Very soon after that a man was observed up a signal-post apparently looking at our party through field glasses at a range of about two miles. The whole thing had evidently taken our captors very much by surprise and where we had been hustled before to maintain a good stout pace we were now pushed very much more.

Having left the scene of our capture at about 3-45 p.m., by about 4-30 or 4-45 we had covered what I estimated to be five miles. While this was pretty fast going even for me who was in shorts and shoes, it must have been terrible for Mrs. Frere and was certainly extremely trying for Frere also. Mrs. Frere was in thin white suede shoes, and very early on one of these had developed a hole in the sole. The going was very rough and nowhere was there anything finer than a very coarse gravel, which, having bits of shale sticking up out of it, was perfectly infernal to walk upon. When one crossed from one nullah into another it was dollars to doughnuts that one would run into camel-thorn or a kind of dwarf cactus like a pin cushion at least once in every ten yards. From this some idea of Mrs. Frere's hardships during the march may be obtained. Quite apart from the roughness of the going, she must have suffered considerably from the pace, and this unaccustomed hard physical exercise on top of the shock

of the capture naturally rapidly exhausted her. It had been necessary for Frere and myself to support her to keep her going, because we were by no means sure what would have happened had she been unable to continue. Several members of the gang continued urging us to greater speed with thumps and rifle-butts until ordered to desist by their leader.

At about this time a camel with two *massaks* of water was seen going approximately in the same direction as we were. We had been repeatedly promised horses "just another four or five minutes along" for Mrs. Frere and also for ourselves, but nothing of the sort had materialized. It was quite evident that Mrs. Frere could not continue very much further at the pace we were going, so we called on the raiders to get the camel on which to mount the lady. At first they were very reluctant to do this, but, on our pointing out that she would inevitably collapse completely unless something was done about it, the headman at last consented to get hold of the camel, which was accordingly gathered in, and an attempt made to make it kneel. The ground was just here exceptionally stony and the camel, being young—also a female—was perverse and refused to sit down. However, my bedding roll was opened out and one of the raiders produced a *razai* from somewhere; a rough pad was fashioned of these two things and flung over the bare hump and a half-hearted attempt was made to get Mrs. Frere on to the beast, the camel grumbling the while and edging about. This attempt was very shortly abandoned and the camel led on some twenty yards or so against a cut-bank at the side of a water-course where another attempt was made to mount the lady.

The camel was by this time nervous and turning nasty while the raiders were impatient to get on as they judged the position very exposed, so this attempt also was abandoned. We went on about a quarter of a mile or so and, crossing a nullah, Mrs. Frere, thoroughly exhausted, stumbled badly and being eased down on to the ground nearly fainted. Milk from the Freres' tiffin basket revived her somewhat but it was evident, even to the raiders, that she could walk no more. Accordingly some "rough stuff" was put over and the unwilling camel was brought down, the lady was mounted on it, and the journey proceeded.

The camel had been taking water from a karez near the hills to a party of cultivators working somewhere in the neighbourhood of the border. At the halts when we first got it, and subsequently, the

raiders and myself were very glad of the water, but the Freres were rather nervous of it and would not touch any. I am afraid they paid for their qualms as to its purity in subsequent complete exhaustion. Later on we encountered the cultivators for whom the water was destined and there was quite a considerable "hi-hi," which, however, did not lead to anything particularly favourable to us since the raiders were all armed to the teeth and the cultivators were entirely without arms of any sort.

Shortly after passing the party of cultivators to whom the camel belonged, we ran into another similar party of about six to eight men, reaping. The headman of this party, a gray bearded elder, made violent protests to our captors about what they were doing, saying that it was an unheard of thing to do, scandalously outrageous, and that the villages on our side of the border would undoubtedly get into very severe trouble for having permitted the raid. An altercation ensued lasting some five minutes, during which time, however, the march was not discontinued; finally, when the leader of the raiders threatened the old man with shooting, he desisted from his efforts to stop our being taken away. This party of cultivators also was entirely unarmed.

At about six o'clock in the evening when we were a mile or so on our own side of the border, a party of mounted levies appeared in our rear and opened fire in our general direction. By this time most of the nullahs had petered out and we had been marching practically along the plain, but as soon as the levies opened fire three of our captors hustled us all into the nearest water-course and we were pushed on even faster than we had been moving hitherto. The remainder of the raiders separated into two parties of four each. One of these advanced in extended order for a short distance in the direction of the levies who had fired upon us and, having found decent cover, lay down and returned their fire. The other party of four, anticipating the next move of the levies, which was to flank us from the north, that is from between Chaman and us, went out some 300 yards towards that flank and there took up their positions. They came into action when certain other levies appeared from the Chaman direction. This little show must have been extremely trying for Frere since, quite obviously, his wife on the camel was much more exposed to the "overs" than were we on foot who were, to some extent, concealed in the deepest available nullahs, which were, however, not deep

enough to protect Mrs. Frere on the camel. While this rear-guard action was going on the three raiders left with us hustled us along as fast as it was possible to get the camel to go. When we had separated ourselves by eight or nine hundred yards from the rear-guard, the two parts of it started falling back alternately, maintaining a desultory fire upon the levies the while. The levies made no attempt to get any closer to them than some eight hundred yards, nor did they attempt to get between the raiders and the border which, being mounted, they could very easily have done. They very shortly gave up the chase altogether. Anxious though we were to be rescued from our position of captives to whom anything might happen, we were very much relieved when the levies gave up the chase. Had the raiders been cut off from access to their own country, or had the levies made a determined attack upon them, it is quite possible that the raiders would have turned exceedingly nasty—not by way of reprisal, but in order to bring pressure to bear on the levies to cease further action.

We must have crossed the border at about 6-15 p. m. Here we were challenged by the personnel of the Afghan border post near which we passed. After an exchange of shouting at a range of about a quarter of a mile between the raiders and the garrison of the post, during which our captors explained who they were and what they were doing, we were waved round by the post garrison. We accordingly made a "chukkar" of some four hundred yards radius north of the post, and passed on about our business.

Having left the border some two miles behind us, we were allowed a short rest. The main idea was to get camels for Frere and myself from a herd which was grazing in the neighbourhood. The leader of the raiders, Kher Mohammed, sometimes known as "the Mullah," did what he could about this but the attempt proved fruitless. Apparently the owner of the herd was absent and was known not to be too friendly to our captors. The camel man did not trust them very much as there was a lot of talk as to how the camels would get back and so on. This halt must have been of about half an hour and was exceedingly welcome. We opened a couple of sodas and also a bottle of beer which refreshed us very much. Mrs. Frere had her tiffin basket and from this she produced some more milk which did her a great deal of good.

Here we tried to get an idea as to why the raiders were carrying us off and, while I was wandering about near-by, Frere got his

motor-driver to ask them. I was surprised later to learn that three cows had been impounded by the British and that this was the raiders' revenge. Frere had misunderstood his driver to say "tin bail" instead of "tin bhai." On my return to the party I got detailed confirmation of what I had roughly understood before, namely—that three of the notables of the Achakzais resident in British territory had been put in gaol and certain trans-border relatives of these gentry were taking this method for their release.

The march being resumed we halted again a little further on to see about camels, and were again unsuccessful. Here we tried to get some food, the Freres having in their tiffin basket a certain amount of fruit. As soon as the fruit appeared the raiders crowded round; one of them actually snatched an apple from Mrs. Frere and there was very nearly a squabble, which, however, the leader stopped. There had been a "hi-hi" about Mrs. Frere's jewellery at the previous halt I learned, and Frere, fearing for his wife's safety, had taken it from her and put it in his own pocket. At this place, when the squabble for fruit occurred, he thought it wise to hand the jewellery to "the Mullah" who promised its safe custody. This episode was the only personal unpleasantness that was deliberately offered to us by the raiders the whole time we were with them.

Frere was now feeling his field-boots very much and was in far too much pain to proceed further on foot. When the march was resumed he was mounted on the camel behind his wife. Shortly after this it started to get dark and the going became a little more difficult. We were now on alluvial silt which had at one time been cultivated, or was then actually under cultivation, and which was, in consequence, a series of variegated furrows. This "pat" alternated with small hills of white sand, very loose and heavy to walk upon. As the dusk strengthened we noticed some signalling going on in the direction of Chaman which was at this time almost directly behind our backs. Had we been able to halt and read the signals we felt that we might have encouraging news and that the signals might even have been intended for us, but, forced as we were to maintain a fast pace in country of that sort, we had to look where we were going, particularly as it was impossible to choose our steps more than a yard or two ahead. It was a great disappointment not to be able to make out, with the occasional glances we were able to give over our shoulders, what was being signalled.

At about 8-30 we arrived at a village whose name I understood to be Killi Ghafur Salehzai. Here we rested and asked for food, not knowing at once whether we were going on or not. The raiders at first seemed to be a little doubtful about this themselves. However, very shortly afterwards we were given *razais* and pillows to lie on ; some very good Pathan tea was produced—this was boiled up with sugar and hot milk—which refreshed us all very considerably, especially as we generously laced it with whisky. We then learned that it had been settled that we should stop at that place for the night. More *razais* were produced to cover us and we tried to get to sleep with Mrs. Frere between Frere and myself, as we were anxious for her safety. Frere's driver and my own lay at our feet. At about nine o'clock we were roused by the offer of food of which we stood in considerable need. This appeared in the form of coarse *chupattis* which were rather too full of sand to be really edible, especially as the march had parched our throats so much as to render swallowing difficult. In spite of being thoroughly exhausted neither of the Freres was able to eat anything ; I made such an attempt to eat as I could but could not manage very much as not only were the *chupattis* full of sand but they were also absolutely tasteless.

Frere was in great pain so Mrs. Frere suggested seeing what was the matter with his feet, and his field-boots were removed, but only with great difficulty. When the boots were off we found them full of blood and his socks soaked in it. With great care his socks were removed and it was found that he had had severe blisters and that these had burst and a portion of the skin, equal in size to the palm of a hand, had been entirely removed from both heels. The toes also had been very much blistered and were thoroughly sore. The tiffin basket again came to his aid, producing a spirit lamp. The leader of the raiders, having learnt what had happened, had produced from the village some hot water which was boiled up quickly on the lamp. Then the feet were carefully washed by Mrs. Frere and dressed with face powder, this being the only thing that any of us had even remotely resembling boracic or disinfectant. Clean handkerchiefs folded up so as to cover the sore heels and a pair of clean socks of mine, protected them to some extent from the dirt. After this we finally composed ourselves to get what sleep we could.

Sleeping at first was not easy on account of the noise that was going on. Our captors were all round us and proceeded to talk and

eat for some considerable time ; the ground was hard and the night surprisingly cold. However, we got to sleep at last, at least I did, and got quite a good rest, waking several times in the night to get a drink. The Freres, I am afraid, did not have a good night. In the first place it must be remembered that they had only been in India some four months or so and had only been in Baluchistan about ten days, having come up from Madras. Naturally the strangeness of the whole country, which we all feel on first coming out from Home, was in the Freres' case very much accentuated ; after having got used to Southern India with its population of small stature, the strangeness of Baluchistan with its men of magnificent physique and fierce aspect must have been most marked. Our situation was, to say the least, disturbing, and the outcome problematical. A further factor contributing to insomnia was the endless chatter that went on amongst our captors and the villagers who had all crowded round to see the English prisoners. A very disquieting feature of the night's entertainment occurred, Frere told me later, in the early hours of the morning, when he suddenly discovered one of the raiders approaching where we were lying ; actually he turned out to be a relief of the sentry posted over us, but of this Frere was not aware at the time. Seeing this figure looming up out of the dark apparently had filled Frere with considerable apprehension. I might here mention that, except for the very necessary hurrying to which we had been subjected on the march out, the raiders treated us extraordinarily well throughout. They had taken an early opportunity of re-assuring us, saying that we could trust to them for our safety and that no personal harm was intended to us. The humping along of all my heavy baggage also struck us as a cheering feature, as did also the fact that we were not in any way restricted as to our movements except that, I imagine, had we started walking in the direction of Chaman there would probably have been objections.

### III.

We had been promised on the evening of the 4th that we would not make an early start from Ghafur Salehzai on the morrow. We had particularly asked to be allowed to sleep as long as the sun would let us as we were weary. The raiders themselves owned to being tired — a most unusual admission for Pathans to make and a sufficient indication of the arduous nature of the march out of British territory. They had agreed to a late start but, nevertheless, began moving

about as soon as it got light and produced for us a little tea at 5 or 5-15 a.m. At about 5-30 we were mounted on camels, the Freres on one, and I with some of the baggage on another. These had been procured in the village and the camel which had brought us thus far was returned to our own side of the border with the boy who had been in charge of it. We started out at once in spite of our protests as to the earliness of the hour.

We were informed that we were proceeding to a village about two hours march further away from our own country, that is to say, approximately on the edge of the desert which one can see so readily from the Khojak Pass. The march was in a generally westerly direction first of all, and aimed so as to pass about a quarter of a mile clear of the northern end of a hill called Kunchai, which is clearly shown on our maps. This is one of the range of small hills which I have mentioned at the beginning of the story as dividing the bowl down the middle from north to south.

During this march we passed close to one or two small encampments and in every case very great interest was shown in us by the locals. The women particularly seemed much intrigued by the sight of a white woman and were extraordinarily taken by Mrs. Frere's hat and shoes. For the most part, the villagers seemed to be rather sympathetic towards us and nowhere could I see any sign of hostility.

Rounding the northern end of Kunchai and turning south-west we worked round the end of the hill and lost sight of Chaman for the first time, feeling ourselves at once very much further into a strange land than we actually were. The country about here was most interesting in that the crops seemed very much better than almost anywhere on our own side of the border. On my commenting on this, various springs were pointed out to me, and I was told that water was quite close to the ground all along under the silty soil; as a result the country gave one the impression of being a rich one—an observation which, however, is not borne out by either the clothes of the villagers or the very low quality and small quantity of food which they seem to have available. Having heard that I was an engineer they asked me to return to them later on and sink some tube wells for them!

As we were passing the northern end of Kunchai the raiders, apparently feeling extraordinarily pleased with themselves, started to dance and sing. The dancing soon stopped but the singing continued



for some miles and was quite an enjoyable break in the tedium of the journey. Suddenly, without any apparent cause, one of the men loosed off his rifle and with much laughing and shouting they had a competition, firing at a white stone on the hill-side about five hundred yards away. I had always heard that the border tribesmen were good shots, and was consequently much surprised to see the bad shooting that our captors did; I don't suppose out of fifty or sixty shots more than one or two went within a yard of the mark, and that on a beautiful cool morning with no wind and an absolutely perfect light from the best possible direction for shooting. We wanted to show them how it ought to be done, but none of them would trust either of us with a loaded rifle.

The south-westerly course which we were taking behind the hill of Kunchai led us down a shallow valley between the hill itself and the high sand hills of the desert to the west. As we approached our destination the leader of the raiders, Kher Mahommed, seemed to be anxious to impress somebody because he got his men into some sort of order and stopped their singing and made them maintain their formation. This seems to have been rather a waste of trouble and an unnecessary exertion of his authority, because it was quite two or three miles before we reached the end of our journey. What with chatting to these men and looking about the country, this trip down the valley did not appear too long, though towards the end we began to find it tedious. I was much interested to learn that the hill of Kunchai itself had at one time been in British territory, that is to say the original boundary ran west of it; but when the boundaries came to be fixed the then Amir gave us one and a half lakhs of rupees for the hill and the boundary was accordingly made east of it. To this day there are frequent small finds of gold there by people, such as our captors, who have the time to go and look for it. Apparently no very great values are got out, but I was told that it was comparatively easy to pick up small amounts in some of the valleys. I was shown two small nuggets about the size of the end of one's little finger, which were said to have been found quite by chance near one of the springs with which the hill abounds.

At about a quarter to nine, or possibly a little later, we arrived at Kunchai village which is about a mile within the sand hills of the desert. It is really only a semi-permanent encampment, the huts being built of a very rough thatching of thorns and tamarisk and other

desert shrubs carried on a light wooden framework. In none of the huts of the village is there any real shelter from either sun, wind or rain, if ever there is any. When the villagers find that they are not getting the shelter they want, they go round and throw a blanket or a mat or something of the sort over the particular part of the thatching that they wish to reinforce—a most unsatisfactory procedure. Seventeen of these wretched “juggis” make up the village, and the amount of property available for the use of the villagers appears to be practically nil; a few *razais* and pillows stuffed with shredded rags, a few goat-hair blankets and mats, a few earthen vessels, and that is all. One would expect in an encampment of this nature to see a great number of camels, sheep and goats; there cannot, however, have been more than a hundred to a hundred and fifty sheep and goats, and of camels there was no sign.

On our arrival we were immediately taken to what appeared to be a sort of guest hut, which was rapidly cleared out for us, and in which they spread *razais* for our comfort. Very shortly after our arrival tea and milk were produced.

#### IV.

It might be as well now to consider what had been happening on the Indian side of the border from the time of our capture.

Shortly before the train had come along one of my men, Girdi, a Hazara mistri in charge of the maintenance of some twenty miles of road, while returning to Chaman came upon the two cars, mine and Frere's, standing at the barrier. From the barrier and also from some of the Frere's luggage, which was lying scattered on the road, he immediately gathered what had happened. Being cautious and a stranger in a strange land none too friendly to him, he stopped at some distance and examined the scene. Near a bundle of what appeared to be clothes he saw a number of broken bottles and wet looking stains on the ground. He immediately jumped to the conclusion that the bundle of clothes was a body and that the stains on the road were blood, which he put down as mine since he had recognised my car. Not waiting to investigate further he dashed off towards Sanzala station near-by, but was just too late to catch the train there. Seeing it approaching on its way past him towards Chaman, however, he called upon a railway maintenance gang to stop the train with their red flag. This the head gangman refused to do, so Girdi hit him under the jaw, laid him out, and seizing the flag held up the

train himself. Girdi explained the position as he saw it to the Guard and somebody was sent up the near-by signal post with field glasses to see whether they could locate the gang and the direction in which we were being led off. The train then proceeded to Chaman, Girdi going with it. On arrival there, Girdi was sent by the Station Master to tell the Officer Commanding what had happened. Needless to say his story of a body on the road lying amid blood and broken bottles caused some consternation. It also gave rise to an erroneous impression that one of us had put up a stout fight with soda bottles for weapons.

Things then started to move very rapidly. Quetta was informed, as also was the Extra Assistant Commissioner, the local representative of the Political Department. A doctor was sent in a motor ambulance to the scene of the hold-up and, to cover him while he was rendering First Aid to the "victims," a small detachment of one of the Chaman regiments was sent up by a special train which the Station Master had been enterprising enough to get ready on his own.

The Extra Assistant Commissioner mobilised some of the levies who work under him and sent them off southwards along the border. He sent another party with trackers up to the scene of the hold-up. The tracker subsequently reported the direction we had gone in as he had been able to spot it by the marks made by Mrs. Frere's small heels. The party sent to the barricade found much of Frere's baggage scattered about the road, the tank of his car practically empty and the engine still running. They managed to get all this back to Chaman fairly easily but were unable to start my car. Later on two officers of the Gurkhas at Chaman went up there and, with great difficulty, succeeded in starting up the Vauxhall and brought it in.

At about six o'clock an aeroplane arrived at Chaman from Quetta, having searched for us in the wrong direction. It was then sent off by the Officer Commanding, Chaman, in the proper direction, but failed to see anything of us, arriving back at the aerodrome at about nine. Incidentally we saw nothing of the aeroplane either, although we had been on the look-out for one.

At about 10-30 that evening the Jemadar of the levies returned having left some of his men near the border. This was after the other party of levies had been in action with the raiders. During the night the Political Agent and the Superintendent of Police arrived in Chaman from Quetta to keep things moving. Armoured cars and

cavalry also arrived in the early hours of the morning, the latter by special train.

From the first definite news of what had been happening, the wires between Chaman, Quetta, Simla and Kabul, had apparently been humming. King Nadir Shah had promised to do everything in his power to secure our release and had ordered his Governor at Kandahar to get on to the job. He in turn brought pressure to bear on the local Commander at Spin Baldak with the result that Afghan levies were turned out in our interests.

## V.

When our captors had brought us tea on our arrival at Kunchai village we were very hungry, having had practically nothing since evening the day before, and we demanded solid food. A few *chupattis* were offered us which were not very appetizing and we suggested eggs which are usually available in the villages on our side of the border. To our surprise we were informed that eggs were absolutely not available as there was not a single hen in the whole of the encampment. However, Kher Mahommed promised to do what he could for us, and at about 10-30 a. m., we were told that eggs had been got from another village about a couple of miles away and we were asked how we would like them cooked. Apparently we could have them roasted or messed up with ghee and milk and a few other things, or plain boiled. Not being familiar with the fancy types of cooking suggested, we asked for them to be boiled and were eagerly looking forward to a good meal when we were informed that the Khan of the village had arrived, having been away at the time of the raid, and would like to see us.

Not being in a position to choose our times to suit ourselves, we consented to see the Khan and, shortly after 10-30, in he came—a most magnificent figure of a man—and was introduced to us by Kher Mahommed. We learnt later that in his youth he had been the champion wrestler of Southern Afghanistan, his territory covering the whole area from our border to the south of Kandahar. To judge by the look of him he must have put on weight considerably by now but, none the less, he was still in the prime of life—a heavily built man of about six feet two or three inches and probably forty to forty-four years of age. We were told that he was a great-grandfather, which appeared to us to be rather a 'large order even for a

Pathan of his apparent age. None the less we had to believe it because various generations of his descendants were pointed out to us. Two of his wives, the younger ones be it noted, were extremely comely and most attractively got up; one of them appeared to have got out all her finery for our benefit and made really a most decorative picture. Incidentally it is to be remarked that none of the women over the border was in *purdah*, and none had any affectation of shyness.

With the arrival of the Khan all the men of the village again came into the shelter in which we were confined, and the whole story of the raid was explained to him. As the tale unfolded, whereas he had appeared at first to be somewhat surprised at our presence, his surprise seemed to give place gradually to some displeasure. It appeared to us strange that the headman of so small a village should not have known beforehand what was going to happen, and I learnt subsequently that the probability was that he actually did know about it, but that he had absented himself from his village to dissociate himself from the raid from reasons of policy; his displeasure as evidenced at the *darbar* of introduction being largely feigned.

The village consisted of a total of only thirteen fully armed men; all of whom appeared to have good modern rifles, some of our service pattern and some Kabuli-made imitations of our .303 inch rifles; there were three modern Russian rifles and two rather old French ones, Lebel. In addition about half the gang had automatic pistols of the Mauser or Steyr types, no Brownings or Colts being in evidence. Each man had on his person some 200 rounds of rifle ammunition, and those with pistols had, in addition, 50 to 100 rounds for the smaller arm. One or two had knives of quite an ordinary type and not in the least resembling either the sword or the dagger which one usually associates with Pathans. It is interesting to note that the prices these men had paid for their rifles show that our service pattern is held in greater esteem than any other—this of course may possibly be because it is so much easier for them to obtain suitable ammunition for it than for others. Several of the rifles had the front swivel screw removed and a longer one substituted to enable it to carry an arrangement of light steel legs upon which to rest the fore-end when firing from a kneeling position. These legs were about the size and weight of the prongs of a very much elongated and narrowed-down hay fork, just long enough to keep the muzzle at eye level when firing

sitting or kneeling. When not in use this arrangement folds up parallel to the barrel of the rifle and, since the ends of the prongs are sharpened, it makes rather an unpleasant looking weapon of the nature of a double bayonet. Whether it is used as such I cannot say, but certainly they had tried on the road to damage my car tyres with one. The tyres being new and extremely tough, however, and the prongs springy, they did not have much success and the tyres were eventually cut with a knife.

The remainder of the village, apart from the armed men, consisted of about ten old men and about twenty youths up to about fifteen years of age. There must have been twenty or thirty women and about a like number of children. Of the older men, one was the real Mullah who appeared to be quite a decent sort and was at pains to do whatever he could for us ; he did his best to entertain us and keep us amused, an attention which possibly I appreciated more than did either of the Freres. Indeed, one way or another, during the whole time we were in the village we were receiving so much attention that privacy was absolutely lacking, and this got very much on Mrs. Frere's already over-wrought nerves. So much was this the case that, eventually, we borrowed a *chaddar* from one of the villagers—it was most willingly lent us—and hung it halfway across our shelter so as to cut off the door end from the other. This proceeding seemed to be regarded as perfectly normal by the villagers and they were not in the least offended as I was at first half afraid they might be ; they fully appreciated the need for privacy and the reluctance of Mrs. Frere to be a target for their continual stares, although, to tell the truth, they did not seem to stare either deliberately or in the least offensively.

*(To be concluded.)*

## MAINTENANCE IN THE FIELD.

By

CAPTAIN M. C. T. GOMPERTZ, I.A.S.C.

There has been no very recent article in this journal dealing specifically with the problems of maintenance in the field. At the same time, there has been considerable progress in the development of Transport systems, both at home and in India.

The progress of mechanization, and the experience gained from earlier systems have naturally necessitated a complete recasting both of ideas on maintenance and of organizations to give effect to it.

It is the purpose of this article to give as simple a picture as possible of the principles involved, and of the new organizations. Although the subject does not lend scope for originality, yet it is of the first importance that everyone should have a clear understanding of its outlines.

### GENERAL PRINCIPLES AND METHODS.

2. All systems of maintenance of an Army are dependent on Transport.

Transport is a subject which must be studied in its—

- (a) Bearing on the attainment of the ultimate objective.
- (b) Effect on tactics and strategy.
- (c) Effect on morale.

It is not an academic question to be studied by itself, but every problem must be tackled in the light of its effect on the ultimate objective. Its effect on strategy and tactics includes aspects of time and space, the length of columns and traffic control. Some transport is a fighting necessity but it must not impede freedom of troop movement. And, it is visible from the air and vulnerable to attack. Its effect on morale is continually emphasized in the 1929 edition of Field Service Regulations, Vol. II. Thus the provision of hot meals before important tactical operations, and the regular replenishment of ammunition, supplies and material are all based on an efficient system of transport, which, in addition to sound organization, must be available at the right time and place, and under the instant control of the formations to which it is allotted.

3. Road transport is therefore organized on three principles—fluidity, elasticity, and adaptability.

This principle of keeping transport as fluid as possible makes it desirable that the vehicles allotted to a unit are kept to the absolute minimum. All other vehicles are on the establishment of organized transport units, and can be used for general purposes. A little thought will show that this principle operates in a very similar way in the composition of other Army formations. Thus, for example, the Division only contains such units and arms as are habitually required within it: medium artillery and tanks are often, but not habitually, required by the Division and so they are omitted from its composition, although they are available when necessary from what we may call the “pool” of Army or Corps Troops. In the same way with transport, vehicles are “pooled” to the greatest extent possible, and, as a rough rule, the further back you get from the front, the more you can pool.

The second principle, *i. e.*, elasticity, means that the organization is capable of expansion or contraction. It is capable of dealing with fluctuating strengths or of covering varying distances. This principle has continually to be remembered in building up any transport system, so that each link in the chain shall bear a similar strain, and any additional strain imposed shall be met by a corresponding increase to *all* the links of the chain. Thus, for example, 2nd and 3rd line transport are each of roughly the same capacity: the temporary addition of, say, medium artillery to the Division means the addition of 2nd and 3rd line transport for this medium artillery to the echelons serving the Division.

The third principle, adaptability, implies a readiness to improvise to meet any unforeseen contingency that may arise. It is really a corollary of the principle of fluidity, but is best stated separately so that it is not overlooked. The need for it frequently arises.

4. Transport is divided into 1st, 2nd and 3rd Line Transport.

*1st Line Transport* may be defined as the Transport necessary to enable a unit to perform its normal functions. It therefore remains with the unit. At Home it belongs definitely to the unit. In India, it is composed of two parts, “unit” transport belonging to the unit, and “attached” transport provided by the Indian Army Service Corps in the theatre of operations. Each vehicle has an allotted load, and there is no reserve-carrying capacity.



The system of delivery of supplies is that Divisional Headquarters fixes Meeting Points for units or groups of units, and notifies time and place to Infantry Brigades.

These Meeting Points should not be too far forward or too far back, and should be easily recognizable on the ground. They are usually fixed in the afternoon, as, until then, the situation is often not sufficiently clear.

Infantry Brigades, through Staff Captains, arrange for guides from units to be at the Meeting Points and these guides lead the 2nd Line lorries up to Delivery Points. At Home, supplies are then loaded on unit transport for the last stage of their journey, but, in India, Delivery Points coincide with units camps or bivouacs where the Supplies are off-loaded and distributed.

It should be noted that mobile cookers are part of the 1st Line Transport at Home, but in India no suitable pattern has yet been devised.\*

The variations between Home and Indian procedure have been dealt with above, because it is not proposed to allude to 1st Line Transport again in this article.

*2nd Line Transport* is included in the composition of the Division. It bridges the gap between Refilling Points and Delivery Points, and it also carries the baggage of the Division. The width of this gap has been fixed at 25 miles as a maximum. This maximum operates both at Home and in India, but at Home it could under very urgent necessity be increased slightly. For India, however, 25 miles is regarded as a fixed maximum figure.

At Refilling Point (or Points), supplies which have been brought there in bulk are split up and loaded on to 2nd Line Transport in the amounts required by the units which they serve. This is technically called "Breaking Bulk," and naturally means that a slight increase of vehicles is necessary for 2nd Line Transport as compared with 3rd Line Transport.

*3rd Line Transport* is not included in the composition of the Division, but in that of Corps or Army Troops. It bridges the gap between Railheads and Refilling Points. This gap does not exceed 25 miles at Home, where it is considered that Railheads can almost

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\* Various patterns of Field Mobile Cookers for both British and Indian troops in India have been manufactured and are now under trial.

invariably be within 50 miles of the fighting troops. In India, however, there is no such guarantee. Owing to lack of development and the extremely difficult nature of the country, it is impossible to forecast a fixed distance between Railheads, and Refilling Points. Any distance may, in fact, intervene and it is not possible therefore to detail a fixed amount of transport. Instead Army Headquarters details daily the amount of 3rd Line Transport required.

3rd Line Transport carries on a bulk basis. It is not always possible to fix Refilling Points at the time when 3rd Line Transport moves forward. In such cases, it is directed to a Rendezvous. As soon as Supply Refilling Point is fixed and the route to it, the Division will send an officer to meet the 3rd Line Transport at the Rendezvous and guide it to the Supply Refilling Point.

5. There is an inherent difference in the incidence of demands for Supplies, Baggage, and Ammunition.

*Supplies* are based on a system of a daily refill. Those for the next day reach the unit on the previous afternoon or evening. At that time, the troops already have what they require for that evening.

*Baggage*, on the other hand, is a more immediate want. At the end of a day's march, the soldier will want to get such rest and comfort as is possible, and, therefore, the early arrival of Baggage is very desirable. There is, of course, no question of Baggage lorries going back to a Refilling Point. Their movement is controlled by Divisional Headquarters from one position to another during the day. They are thus kept out of the way of main roads so as not to hamper operations, and are moved so as to be suitably situated in the afternoon for their final forward movement to the troops.

Contrast this with the movement of the Supply echelon on a definite beat between Supply Refilling Point and Delivery Points.

After delivering Baggage, lorries usually stay under Brigade control for the night, pick up baggage again next morning, and return to a Rendezvous, where they once more revert to Divisional control. The tactical situation may, however, preclude the lorries from staying in Brigade areas. In such circumstances, arrangements must be made for loading the lorries on the following morning. Or again, the tactical situation may preclude the delivery of Baggage to forward troops at all. This does not necessarily mean that no Baggage at all can be

delivered. It is generally possible to send it up to the Reserve Infantry Brigade, and the comfort gained thereby is of great value to troops who either may have already been heavily engaged or who may themselves be put into the fight in the near future. Deliveries may also be made to some or all of the Divisional Troops.

*Ammunition* must be supplied whenever required. It is heretofore a spasmodic demand. There are periods when it must be supplied to the fullest extent possible of ammunition echelons. Again, there are periods when demands are very small.

Speaking generally, the provision of demands for ammunition under all the varying circumstances of war presents one of the most difficult and intricate problems of the Quartermaster-General's staff. It brings into play all the principles referred to in paragraph 3, and it may be necessary to assist mobile echelons by forming dumps. Dumping must, in all cases, be strictly controlled.

*Petrol* at present comes under the category of supplies. With the advance of mechanization, it may become necessary to form a separate echelon for petrol.

Demands for petrol will then be more typical of ammunition than of supplies—i. e., spasmodic rather than regular. This, of course, refers to demands for vehicles with fighting troops and not to maintenance services.

### HOME ORGANIZATION.

6. The Home organization within the Division consists of:—

Divisional Headquarters, Royal Army Service Corps.

Divisional Supply Company.

Divisional Baggage Company.

Divisional Ammunition Company.

This organization is a distinct improvement on its forerunner—the Divisional Train.

Firstly, it makes definite provision for the R. A. S. C. within Divisional Headquarters, and so improves liaison between the Quartermaster General's staff and the maintenance service.

Secondly, it keeps the whole of the Baggage Company together and the whole of the Supply Company together, each under the hand of its respective Commanding Officer until such time as orders are received to move forward to Meeting Points. Contrast this with the

-old system. The Divisional Train had four companies, three for Infantry Brigades and one for Divisional Troops. Each Company consisted of a Baggage Section and a Supply Section. Now it has been explained in paragraph 5 above that Baggage and Supply echelons have a different field of action during the day. Thus, the Supply Section might be 25 miles back at Supply Refilling Point: the Baggage Section might be 8 miles back in a concealed area. Therefore a distance of 17 miles separated the two parts of the Company, and they remained separated practically throughout the day. This did not conduce to satisfactory command.

7. The Ammunition Company must be treated separately. The whole question of the system of ammunition supply has been slightly modified by the abolition of the Divisional Ammunition Column, Royal Artillery. This unit was, hitherto, one of the recognized echelons of ammunition in front of Railhead.

There will, however, be no decrease of ammunition in front of Railhead. The Divisional Ammunition Company is to consist of 3-ton Medium lorries (six wheelers) instead of 30 cwt. lorries which have been used formerly. This means an increased lift, and a reduction in road space. It is interesting to note that this is the first entry of a 3-ton lorry into the Divisional maintenance services at Home. The Divisional Ammunition Company will deliver to Wagon Lines or Gun Positions. It will consist of Headquarters and four Sections, three sections supplying the three Field Brigades, R. A., and the fourth section supplying the Light Brigade R. A., and small arms ammunition and grenades.

The loss of the Divisional Ammunition Column, R. A., as an intermediary between batteries and ammunition lorries has been met by the creation of a forward communication centre called the Forward Ammunition Point (F.A.P.) A Royal Artillery Officer will be in charge of the F. A. P. and he will receive demands from batteries, consolidate these demands and send them back to the Divisional Ammunition Company. He will select routes to batteries, and see that the correct natures of ammunition are sent up.

As regards small arms ammunition and grenades, No. 4 Section of the Divisional Ammunition Company will have despatch riders to act as a link with Infantry Brigades and the Divisional Cavalry Regiment.

8. Repairs are split up into 1st Line repairs (can be done within 24 hours with hand tools), and 2nd Line repairs (can be completed within 4 days). The Divisional Ammunition, Supply, and Baggage Companies each have their own workshop staff to cope with such repairs to their vehicles. Any repairs that will take longer must be evacuated to the Base Heavy Repair Shops.

9. As regards 3rd Line Transport, there has been no departure of any consequence from the previous procedure of providing a Maintenance Company for each Division in the field. This Company consists of a Supply and an Ammunition Section, the whole being operated under Corps Command.

### INDIAN ORGANIZATION.

10. India, like all other parts of the Empire, has at its disposal the experience gained at Home of various organizations, and the results of research and experiment. Thus, it may be said that the Home Army is the laboratory of the Imperial forces.

The problems which any particular part of the Empire has to meet are not, however, uniform and local conditions have to be given due weight. Therefore a slavish grafting of a Home system in all its details on India would be most unsound from every point of view. There is, for instance, no vast civilian motor industry in this country, and, at any rate for the present, the provision of lorries is almost synonymous with importation.

This definitely affects quantities available, and enforces a more rigid application of the principle of fluidity.

To arrive at a correct appreciation of the soundness of this or any other transport organization, it should be considered in the light of the three principles given in paragraph 3. If this is done, it will be seen that the Indian organization is in agreement with all three principles. Firstly fluidity. When available transport is limited, it is necessary to keep the amounts allotted to a definite unit as low as possible. In India, only the 1st Line transport is thus definitely allotted. The 2nd Line transport is a "pool", but, as the amount of transport required can be roughly foreseen, the size of the "pool" can be fixed approximately. The 3rd Line Transport is also a "pool," but here the amounts required cannot be foreseen but vary with each specific instance: therefore the size of the "pool" cannot be fixed beforehand. Secondly, elasticity. The amount of 3rd Line Trans-

port cannot be fixed, because the distance between Railhead and Refilling Point is variable. Therefore the Indian system does not provide a single specific Maintenance Company, but holds Mechanical Transport Companies in readiness in such numbers as the distance to be covered will require. Thirdly, adaptability. One danger of the "pool" system is that all transport may be employed on a specific task when there may come an urgent and immediate demand for transport. Such urgent demands will normally be for ammunition. The Indian system therefore definitely caters for an ammunition dump at Ammunition Refilling Point, when necessary.

Again, difficulties of terrain make it inexpedient as yet to place full reliance on Mechanical Transport. Divisional and Field Ammunition Columns R. A. are therefore retained as a link between 2nd Line Mechanical Transport and units. And, similarly, there are two Reserve Pack Companies Animal Transport as a link between 2nd Line M. T. and units, when the nature of the country prevents M. T. reaching units. It can therefore be said that the principle of adaptability has been given full weight, and the unforeseen contingency provided for.

11. The Indian maintenance organization of a Division therefore includes :—

Headquarters Divisional, Indian Army Service Corps.

2nd Line M. T. Companies.

One M. T. Company (Mobile Repair Unit).

Two Reserve Pack Companies A. T.

By comparing this with the home organization in paragraph 6, it will be seen that there are no Supply, Baggage or Ammunition Companies but instead 2nd Line M. T. Companies—i.e., a "pool." This "pool" may consist of Companies of 3-ton lorries or of 30-cwt. lorries, or of Composite Companies containing both types of lorries. Roughly, however, the number of "working" (as apart from "spare") lorries can be calculated if it is borne in mind that the lift of this 2nd Line "working" transport amounts to approximately 510 tons. This is available for the carriage of any loads as necessary. It will probably consist of two or three M. T. Companies. When the necessity arises, all 2nd Line M. T. Companies may be pooled under the orders of Army Headquarters and used for General Maintenance purposes.

As regards ammunition, the F. A. P. is formed by the Divisional Ammunition Column, under the orders of the Divisional Commander

issued through the Divisional Artillery Commander. The forward move of ammunition from F. A. P. to Delivery Points may be in division 1 ammunition column lorries or ammunition wagons or in 2nd line M. T. lorries. Medium Battery lorries normally go back to F. A. P. to refill. The D. A. C. has motor cyclists for communication between the units served, F. A. P. and 2nd Line M. T.

The lift of a Reserve Pack Company is 25 tons.

12. The repair organization for maintenance vehicles follows Home procedure in that 2nd Line M. T. units have their own mobile workshops. There is, however, a difference in the classification of 2nd Line repairs, the period in India being increased to repairs completed within 144 hours. The question of the repair of vehicles other than those belonging to the Army Service Corps is outside the scope of this article, but it may be mentioned that an Indian Army Service Corps mobile repair unit is provided in India, whereas at Home it is not an R.A.S.C. responsibility at all except for Royal Army Medical Corps motor vehicles.

13. At home fresh bread and frozen meat is sent up from the Line of Communications. In India, the Division contains ten Bakery and ten Butchery Sections. A section provides bread or dressed meat for 400 British troops. There are also four supply Issue Sections.

14. 3rd Line Transport in India consists of the number of standard Mechanical Transport sections required: these are grouped in M. T. Companies (4 or 5 sections per company) and are a pool at the disposal of the Army Commander.

#### CAVALRY BRIGADE, INDIA.

15. This has a maintenance organization of:—

Headquarters Cavalry Brigade, Indian Army Service Corps.

One 2nd Line M. T. Company (30-cwt.).

There is one difference in method. 2nd Line Transport is in two echelons, of which "A" carries such 1st Line Loads as are not vitally necessary, and "B" carries out the normal duties of 2nd Line Transport. This method is designed to achieve maximum mobility.

In addition there are two Bakery, two Butchery, one Supply Issue Sections and a mobile repair unit.

THE CANNON AND THE CANNONEERS  
OF  
BYGONE INDIA.

By

C. GREY.

Incredible as it may seem, the evolution of the cannon from a mere metal hollow cylinder, closed at one end, and having a range to be counted in hundreds of yards, to the present day highly scientific instruments of destruction, throwing a projectile heavier than many of the ancient guns themselves to a range counted in tens of miles, has taken place within the lifetime of many who have not yet reached the allotted span.

The ordnance of Elizabethan days were identical in all but name with the cannon used in the Crimea, the Indian Mutiny, and the opening stages of the American Civil War, and the cannoneers of Drake, Sir John Hawkins, and the fighting Veres of the Dutch War of Independence in Armada days, would have found no difficulty in stepping straight into the places of a gun crew of the 'sixties. Nor would those of Captain Best, who gave the Portugese their first lesson at Swally in 1612, of Captain Andrew Shilling who beat them again at Jask, and of the doughty merchant captain John Weddell, who took Ormuz in 1622, and shattered the Portugese fleets in the Persian Gulf in 1625, have been any more backward in handling guns used as late as the 'seventies, when muzzle-loading ordnance were still in vogue in the British artillery. So far as regards rapidity of fire, the old gunners were quite good, judging by John Weddell's report that "oure ordnance plied so fast as small shotte, until the enemie fledde before us like unto smoake before the winde." As the Dutch and English and the opposing Portugese fleet were said to have fired no less than 16,000 shot in one day, his boast of rapid fire is justified. Certainly he says nothing of accuracy; perhaps a wise omission.

The sonorous and romantic titles of Cannon Royal, Culverin, Demi-Culverin, Basilisk, Minion, Falconet, Murtherer, Patereroe which entrance us in the pages of Purchas's "The World Encompassed," and that fascinating romance of the Armada, wherein figure Salvation Yeo and Amyas Leigh, were bestowed on ordnance



practically identical with the Victorian cannon of 64-pounders downwards. The ranges given by Sir William Monson in his "Naval Tracts" of 1615, which give from 2,000 to 800 yards at random (extreme elevation) to 800 yards down to 150 point blank were little exceeded by Victorian cannon. It is on record that so late as the year 1838, the Maharajah of Lahore was enchanted with the skill of a British artillery officer, who, on the plain at Mian Mir, demolished an open umbrella with a nine-pound shot at 300 yards, a feat considered by all a marvel of skill and accuracy.

To confine ourselves to Indian cannon, and the cannoneers who worked them. Though artillery was introduced by the Portuguese in the 17th century, and widely used in Indian Wars, until considerably later the guns were cumbrous and badly worked. Noise and size were considered far more important than range and accuracy. To this obsession were due such monsters as the Malik-i-Maidan of Bijapur, the Great Gun of Agra, weighing some twenty tons, which lies buried in the sands of the Jumna, and a number of others, all just as unwieldy and useless, which lie corroding away in the ancient forts or near the decayed cities of southern India and Bengal. Many of them could not be mounted, and the majority were seldom, some even never, fired, for, being incapable of elevating or traversing, the target was the universe, and the shot went as far as the powder could carry it, and in whatever direction the muzzle happened to point. Of this description were the guns used by the Persians in many of their sieges in Khorasan. These guns were cast on the spot, within range of the city, the elevation and direction being guessed at. As the target was some miles in extent, they must have hit something or other, but most probably the effect was more moral than material. Such guns were broken up and in that condition were removed to the next siege, where the process was repeated.

With few exceptions, mostly imported from Europe, the guns, great and small, used by the Moguls and others, were of brass. Even the field guns of the East India Company were made of this metal until the end of their reign. Until the mid-nineteenth century, their iron siege guns were imported from England. The reason for the use of brass was not preference, but necessity, for iron was scarce, and local skill and facilities rendered it practically impossible for any but the smallest to be made of this material. On the other hand, the supply of brass was inexhaustible, for every village and town possessed

innumerable brass or copper utensils, which in time of need were requisitioned. For instance, the Zam Zamma of Lahore, and its sister gun, were cast in the year 1759, from this sort of material provided by the requisition of the household utensils of every Hindoo in Lahore. Another curious material used was that of the bells of the old Jesuit Church established in Agra in 1624. When the Jesuits fell from favour, Jehangir demolished their church and gave the peal of bells to a Jat chief. They were found in the possession of his descendants by the French adventurer, Madec, in 1764, and though he endeavoured to save them, the need for guns was so great that the bells were melted down into an 18-pounder gun. It was by means of such material that Thomas, Sombre, De Boigne, Madec and others provided themselves with guns, or replaced those which they had lost. Nothing was easier than to replace guns, provided the beaten force was not too badly routed or closely followed up, for they would halt in safety, requisition the material, cut down a few shisham trees for carriages, and in a few weeks stand forth fully equipped with complete batteries. As showing how late brass guns were used, that lately used as a time-gun at Lahore was cast by A. Wilson at Cossipore in 1842, and was used in the Punjab War of 1849. This class of gun lasted until much later.

But even more interesting than the ancient ordnance of India, used by the native princes, were the men who worked these guns, for from the time of Jehangir, right down to that of Tippoo Sahib, Scindia and Holkar, Europeans were the leading artillerists in Indian Armies. The history of these men has yet to be written, if indeed it can be, for except for scanty mentions of them in the pages of Tavernier, Bernier Manucci, Irvine, and a few others, together with the records of the East India Company, but little is available.

The first mention we find is in the Diary of John Jourdain who records that as early as 1610, William Hawkins, the merchant ambassador of the East India Company to Jehangir, led sixty Europeans in Jehangir's service to a church parade at Agra. As they marched under the Red Cross, we may conclude that they were English, or their fellow Protestants, Dutchmen, who at all times were almost as numerous as the English in the native armies. We do not take count of the Portugese, who were much of the same mixed race as those now called Goans.

William Finch, who was in Lahore in 1613, mentions that he was accompanied by Captain Boys, three Frenchmen, and a Dutch engineer,

who were leaving the service of Jehangir, and with him all died at Baghdad on the way home overland. The importance of the European artillerymen, and the length the Moghul emperors were prepared to go to obtain them and retain their services, is amusingly described by Niccolo Manucci, who, himself, was at one time chief gunner to Dara Shekoh, brother of Aurangzebe. But here it is necessary to explain that Manucci, who wrote his memoirs fifty years later, seems to have confused Akbar and Jehangir, for Akbar died in 1605, whereas the English did not arrive at Surat until 1608.

The anecdote runs —

“ Finding that his gunners were of no use, and knowing Europeans to be the most expert, the king asked the Indian governor of the Fort of Surat to send him a good gunner. There was at this time a very skilful Englishman at Surat, who was sent to the king, and engaged at a salary of Rs. 500 per month. However, being very fond of strong waters, which could not be procured at Agra, owing to the Mohamedan Law, the gunner in spite of all those rupees was most unhappy. One day the king directed the Englishman to fire at a sheet which had been stretched on two poles on the other side of the river. The gunner intentionally fired the shots in the air, and the king was much put out, thinking he had no skill. He asked the gunner why he had missed the target, when he was reputed to be so skilful. The Englishman answered that he could not see until he had drunk wine; whereupon the king commanded that they should bring him spirits, of which there was no lack, for they were given to the elephants to increase their courage. When he saw the spirits, the Englishman seized the bottle and put it to his mouth with the same eagerness that a stag rushes to a crystal spring. One draught and he finished the lot, and then licking his moustache turned towards the target, and rubbing his eyes, which he said were now clear, directed them to take it away and replace it with a pot on a stick, which he demolished with the first shot. The King was so amazed at seeing such a good shot, that he gave instant orders to permit the Europeans to distil and drink whatever spirits they chose, saying that without spirits they were like fish out of water and could not see straight. To this day the Feringhis alone in the Moghul empire have the privilege of distilling spirits.”

The gunner must have been as doughty a drinker as he was a gunner, for the spirits distilled for elephants were the crudest and strongest of arrack. But at all times, until recently, gunners were always doughty

drinkers. In 1642 we find Peter Miller and Daniel Chester, and an unknown Dutchman, gunners to the Persians at the siege of Kandahar, without whose aid the place would not have been taken. Most sourvily were they treated by the Persians, who after the siege dismissed them to find their way back to India as best they could. Two of them died on the journey. In 1653, Niccolo Manucci mentions that Thomas Roach and Reuben Smith were chief gunners of two hundred Europeans in the service of Shah Jehan; John White and John Campbell being his gun founders, a position the latter utilised to cast the Royal Arms of England on the Moghul ordnance. A year or so later Manucci himself was chief gunner to Dara Shekoh, commanding about eighty more English, Dutch, and Portugese gunners whose pay was Rs. 80 to Rs. 200 per month each, great money for runaway seamen, whose pay under the company was limited to 25 s. per month.

The spearhead of the army of Aurungzebe was composed of 100 cannon, each having a European gunlayer who did nothing else but superintend the loading and lay the gun, the remainder being done by Indian matrosses (gunners). The oldest European tomb recorded north of Hindustan was that of Joseph Hicks, gunner to Mahabat Khan, Governor of Kabul. Hicks died there in October 1666, and the tomb was seen by Masson, the traveller, in 1832, and by numerous officers and travellers who were in Kabul between that date and 1842. However, it had disappeared when sought in 1880, probably having been destroyed on account of the interest shown in it.

About the same time John Barnes was with Asalat Khan in Balkh, a very far cry from Surat, but no further, or indeed not so far, as other Englishmen travelled in search of employment before and after. Dropping down the ages we find many mentions of desertions from the Company's and merchant services, to the armies of the native princes, where they were always in demand as gunners and received high pay. Amongst such was Thomas Platt, who was with Mahomed Amin Khan at Dacca in 1670. Like a number of others, Platt met his death at the hands of his employer, who, being offended at defiance by the Englishman, had him and his mates bound hand and foot, put aboard a boat, and sunk in mid-stream of the Meghna.

In 1711, the Dutch ambassador to Bahadur Khan at Lahore, mentions that John Wheeler, commander of the Feringhis in that service, ranked as a commander of 500 horse, and drew a salary of Rs. 2,000 a month. This does not imply that the numbers of men under

him was so considerable, but does mean that it was considered very important. In 1722 Clement Dowson, who with Nathaniel Webb, James Lyons, and William Hocking, were gunners to the Nawab of Gujerat, mentioned that in the opposing army there were twenty others, English and Dutch. and sixty more at Delhi alone, all "well paid and considered."

In 1726, James Plantain, once a pirate king in Madagascar until the place became too sultry for even him, set sail thence with the surviving dozen of his men, to join Angria Pequena, the arch-pirate of the western coast, and to become, himself his chief gunner, and the others commanders of pirate vessels. In 1750, William Irvine mentions an unnamed Irishman as gunner to the Subah of Bengal, and from thence onwards down to 1805, Europeans in such employment were even more numerous.

The Nawab of Oudh employed Sombre, commander of a company of freelances, who had a hundred of the rascality of all nations as gunners with him. At the same time a Frenchman named Madec served Main Jaffir and others with another free company of near upon two hundred Europeans, mostly Frenchmen, firstly renegades from their own country and then deserters from the British. George Thomas, the Irish raja of Haryana, served the Polygars of Madras and the Nawab of Hyderabad as a gunner before joining Begum Sumru, and later becoming independent; while his conqueror, the Frenchman Perron, who commanded the great army of Scindia, and was dictator of Hindustan for some years, also commenced life as a gunner in native service, after deserting from the French.

James Skinner records that over one hundred European and Eurasian gunners in the army of Scindia were slaughtered at their guns, in the great battle of Malpura, between Scindia and the Rajputs of Jaipur. The artillery of Ranjit Singh was not, as generally supposed, brought to its great excellence by his French generals, but by deserters from the British artillery, such as John Brown and others, some of whom actually fought against us. So much for the men.

Let us conclude with a brief description of how the guns worked by them were made, premising that from the Zam Zamma to the 3 and 6-pounder battalion gun, the process was identical in all but bulk. For this we are indebted to Major Reynell Taylor, a British political officer who was engaged in settling the country in the period between the two Sikh wars, and was escorted by a battery and some battalions

belonging to the Durbar. These were under the Eurasian, Colonel John Holmes, and the guns having been much scored by the hammered iron shot used with them, became unserviceable. Hence they were recast. Major Taylor's journal reads:—

“8th December 1848. Saw the preparations for casting guns. It is ingenious but simple. The first process is the formation of a mud model of the future gun round a pole. The pattern is beautifully made and shaped and moulded to the exact size required. When dry, the mud composition of the mould was centred on this pattern to a thickness of about half a foot. This was allowed to harden. After this, the centre pole was withdrawn, and the pattern crumbles to pieces within the mould. This mould is now fire hardened to brick-like consistency.

“Into the mould the metal is run from a mud furnace. Before running the metal, an iron bar covered with composition, and moulded to the exact size of the bore, is suspended within the mould in the exact centre, to form the bore. The gun is cast in a vertical position. Thus the whole gun, trunnions and all, is cast at once, and turned out of the mould nearly ready for use.”

A few days later, Major Taylor records in his journal: “The new guns being now mounted and ready for use, were tried and found to be quite good.” When we add that the shot were of hammered iron or lead, and the shell of brass or lead, costing, the former a rupee and the latter Rs. 3 each, it will be seen that both cannon and projectiles have gone a very long way since the year 1848.

## MAP REFERENCE SYSTEMS.

By

PAIMAISHWALA.

India Army Order No. 105 of 1930, changing the system of map referencing to be used on maps throughout India, probably conveyed very little to the vast majority of those who read the order, whilst to the remaining small minority it was pregnant with meaning. Although this decision has been thus promulgated, two systems must continue in use side by side for a very considerable period, and an appreciation of the situation which led to the decision may serve to satisfy a few inquisitive minds and to leave some slight record of the superseded system, which was not without its merits.

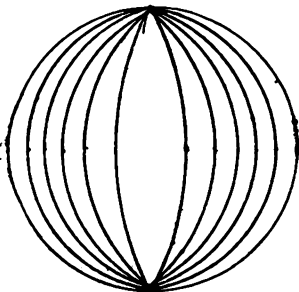
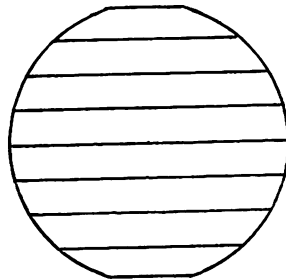
The object of a map reference system for use in a fighting force is to provide a means of indication of places, positions, etc., for all arms, and of arriving at the ranges and lines of fire for machine-guns, artillery and tanks, with both the necessary rapidity and accuracy. To fulfil this object a system must be a net of similar regular figures, rectangular or nearly so, and the numbering must be arranged to provide an easy and rapid means of obtaining distances in the directions of the sides of the figures. This latter essential is purely mechanical and as the method is fundamentally the same in all systems it need not be considered.

The factors affecting the situation are, in general, the principles which govern the selection of the projection on which the map is drawn in the first place. A map projection is a means of representing the geographical lines of latitude and longitude, imagined on the curved surface of the globe, on the flat surface of map sheets so that the features of a portion of earth may be drawn on the map sheets in their correct relative positions. The average person's ideas of map projections are generally hazy recollections of ellipses, double circles or ordinary rectangles on which are drawn more or less distorted representations of the whole globe. These, since they endeavour to portray the whole earth on one sheet, have very little bearing on the present question which deals with maps on a scale which, at its smallest, would require some ten thousand sheets to cover the land surface of the earth.

To discuss this question of the selection of a projection it is probably best to revert to the hackneyed analogy of constructing a spherical balloon from flat cloth. If the ordinary person were asked to make such a balloon he would probably commence by cutting out pieces either in the shape of gores or else curved parallel strips, each strip of a different curvature. When sewing them together he would find that the shape of the balloon was most nearly



spherical when the strips were narrowest, and that, compared to a smooth sphere of the same size, the centres of the strips were in length less, and the seams of the strips were in length greater than their corresponding lines on the smooth sphere. The similarity of the balloon made with gores to a globe covered with lines of longitude, and of that made from strips to a globe covered with lines of latitude, would also be noticed. In fact, we have now got an approximate representation of the globe on a number of pieces of flat material each of which can be the basis of a map projection, or the basis on which the figures for a map reference system can be drawn.

**GORES****STRIPS**

It has already been noticed that the narrower the strips or gores the more nearly a sphere is the result, and it would appear logical to make these as narrow as is possible. In the case of a map sheet, which we can consider as being a portion of both a strip and a gore, the narrowest width possible for the strip is the length of the sheet, and for the gore is the breadth of the sheet. For the purpose of a map reference system the narrowest widths are the length and breadth of the smallest quadrilateral. In both these cases the shape of the figure is a quadrilateral bounded by lines of latitude and longitude whose size varies with the latitude of area to be mapped. The width of the strips and gores assumed to have been used is so small that the departure of the shape of the map from that of the earth is entirely



negligible. Map projections on this principle are the polyconics, and the reference system the minute mesh.

Suppose for any reason it were not suitable to have map sheets or figures of reference which were quadrilaterals, and that it were essential that both these figures should be squares or rectangles. To be of any use these squares must be continuous over a considerable area. As squares can only be drawn on a flat piece of paper, we must choose one of the flat pieces from which the balloon was made and draw them on that. We can choose either a strip or a gore according to the need. Whether the strip or the gore is chosen it has already been remarked that the centre line is too short and the edge too long. When the squares are drawn the result of these errors is that the squares in the centre are on a slightly smaller scale than those near the edges. When this divergence of scale becomes intolerable for the purpose for which the system is required, the squares must be drawn on the next adjoining strip or gore, with the result that the square lines are discontinuous along the seam. Projections to which this analogy applies are the large number of conics and zenithals, etc. The map reference system on this principle is known in general as the rectangular and is distinguished by the name of the particular projection on which the squares are drawn.

It is now clear that a geographical system, or minute mesh, has the disadvantage that the figures are not rectangular and the sides are not of constant length. It has the advantage that the sides are always east and west, and north and south and that it is continuous over the whole earth. A rectangular system or grid has the advantage that all the figures are square. It has the disadvantages that it is discontinuous, that the squares are not of constant size (on the ground) and that the sides of the squares do not run north and south or east and west. In addition to these, a little thought will show that any map which has lines of latitude and longitude upon it can immediately be given a minute mesh by ruling up the appropriate latitude and longitude lines. A rectangular system cannot, however, immediately be drawn on such a map, since laborious calculations must first be made to find the latitudes and longitudes of the corners of the squares it is desired to draw. This consideration is of the utmost importance since there are very few parts of the world of which some form of map does not exist, and the use of latitude and longitude lines is almost universal. In the exceptional case of a country being mapped *de novo* in war-

time no bias arises towards either the grid or the mesh, as all mapping would be carried out on the reference system other considerations rendered advisable.

The object of a map reference system, as already pointed out, involves the "necessary rapidity and accuracy." For indication of places, provided the figures are of a convenient size and reasonably "square," there can be nothing to choose between any systems, and this question, therefore, reduces itself to the consideration of the rapidity and accuracy of the two systems in the calculation of ranges and lines. A detailed examination of these questions would be technical and lengthy. We will, therefore, assume as an initial premise that the figures of a "mesh" (geographical system) although not strictly rectangular will not produce errors of line when applied to light or field artillery between the latitudes of 60° N. and 60° S., greater than the width of the 50 per cent. zone of the gun or howitzer and will produce no error in range, and further that the increase in time for making a calculation will not be more than 5 per cent.\* In the case of heavier pieces the assumption cannot be held, and the increase of time of calculation will be about 50 per cent. for an accurate result. In the case of the rectangular grid we premise that, in one particular zone, calculations are accurate and rapid. For medium and heavy artillery moved from one part of the zone to another the change of scale may involve an increase of time of calculation by 5 per cent.

The only factors which remain to be considered are uniformity throughout the Empire, and, in the case of the rectangular grid, the method of dealing with discontinuous seams. The War Office have adopted the rectangular grid for England and the Colonies, but this can only be said to be uniform in principle, since each colony must have its own standard parallels. The geographical mesh cannot be considered uniform as it has not been adopted elsewhere.

In the rectangular grid the "seams" are a very real source of difficulty. As a line they represent a discontinuity which cannot be crossed by any simple calculation for range and line. The only way to cope with the trouble is to overlap the *seam* by each grid so that the heaviest artillery cannot shoot across the overlap. The whole of this overlap must then be mapped on both grids and the greatest care must

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\* The maximum error of line is roughly  $\frac{R \times}{4,000} \tan L$  minutes where R is the range in yards and L is the latitude. This equals 1½' at 30° lat. and 4' at 60° for a range of 9,000 yards.

be exercised to see that the right people get the right maps. Getting on to an overlap during a campaign would be an unmitigated evil, yet, since the zones of the grids must be chosen in peace time and cannot easily be changed to suit changing international situations, the difficulty must be considered a very real one.

The two courses open may, then, be summed up thus:—

(A) The adoption of the *minute mesh* with the

*disadvantages* (i) that the time of computation for field artillery would be increased by 5 per cent. and an error introduced in the line less than the width of the 50 per cent. zone;

(ii) that personnel of medium, heavy and super-heavy artillery would require to be taught a new calculation which would increase the time of calculation by 50 per cent ;

(iii) that the system is not at present uniform in the Empire.  
*Advantages* (i) that the system is continuous over the whole world.

(ii) that it can be drawn on any foreign map rapidly ;

(iii) that the method of calculation of ranges and lines once taught, would be suitable for any extension of range of super-heavy artillery.

(B) The adoption of the *rectangular grid* with the

*disadvantages* (i) that two sets of maps with different grids must be maintained for large overlap areas, with the necessity for careful separate storing and issue ;

(ii) that the medium, heavy and super-heavy artillery will need to recalibrate or apply corrections to range when moving considerable distances in a zone ;

(iii) that conceivable extensions of range of the heaviest artillery might upset carefully planned arrangements for the width of zones and the extent of the overlap ;

(iv) that considerable computation would be required before the grid could be drawn on foreign maps.

*Advantages* (i) that no change is required in the present methods of artillery calculation.

(ii) that the system is that uniformly adopted in the Empire.

## THE PURSUIT TO MOSUL, OCTOBER 1918.

By

“ LANCE.”

### *The task of the 11th Cavalry Brigade.*

On the 21st October 1918, instructions were issued by the 1st Corps to the 11th Cavalry Brigade laying down its rôle in the operations then about to commence. These were amplified by verbal instructions given personally by G. O. C. 1st Corps to the Commander, 11th Cavalry Brigade.

The Brigade was to reach the LESSER ZAB on the 24th October, the day on which the 1st Corps was to attack the FATHAH position. On the 25th it was to operate down the LESSER ZAB against the TURKISH rear, to prevent them reinforcing their left flank. It had also to assist in securing a bridge-head on this river for the subsequent use of 1st Corps. The Commander was also warned that he might have to operate across the TIGRIS above SHERQAT, at any time after the 25th October.

### *Lessons.*

The manner in which these instructions were interpreted and carried out, provides a unique illustration of the application of the Principles of War to Cavalry Tactics. In addition, the operations show the influence which a bold, resolute commander can exert on the course of a campaign, and the effect of a relentless pursuit.

### *Mobility.*

During the four days, 23rd to 26th October, the 11th Cavalry Brigade averaged thirty-six miles a day. This was a fine performance, but it is not in this alone that the lessons are to be found. Very careful arrangements were made to lighten the brigade of all impedimenta, *e.g.*, sick men and animals, equipment not of vital importance in battle, and all baggage. Apparently no weight was taken off the horse, and in spite of this the horses did all that was required of them. On the other hand, had their load been lightened, the wastage would have been reduced considerably.

The transport released was used to carry two days' supplies, whilst a similar quantity was pushed ahead by Ford van convoy. In this way the brigade was made independent of the country and of its Line of Communication for five days on full rations. To ensure that local supplies could be obtained easily, a Local Purchase Officer with cash accompanied the brigade. The positions and condition of water supplies were ascertained beforehand. As a result of these arrangements there were no maintenance difficulties, except in gun ammunition. In this matter those responsible had failed to realize the demands which would be made on the Artillery. Throughout the war Cavalry suffered from inadequate artillery support.

In every case the delay between the receipt of orders or of information and movement was short; invariably the brigade was "quick off the mark." This was due partly to the high standard of training in units, but great assistance was received from the Commander, who had an uncanny gift of anticipating orders and events. Warning orders were also invariably issued.

In spite of the long marches on the 24th and 25th October, fifty and thirty-five miles respectively, the brigade was capable of vigorous action at the end of each. Neither the 7th Hussars at the LESSER ZAB, nor the Guides Cavalry in the dash for HUWAISH, showed signs of their previous great effort. To maintain energy and a fierce offensive spirit in troops under these conditions, was no mean performance on the part of the commander and his staff.

#### *Maintenance of the objective.*

The eventual task of the 11th Cavalry Brigade was to prevent the escape of the Turkish Main Body Northwards to MOSUL. To fulfil this rôle it had to seize and hold the MOSUL road North of SHER-QAT.

The brigade reached the TIGRIS opposite HADRANIYAH on the afternoon, 26th October, and found the crossing dangerous. The river was broad and fast, there was no marked ford and the one eventually used was five feet deep in places. The Commander had to choose between crossing at once, or waiting until a ford had been marked and a ferry established. In the first case he ran two risks. The river would certainly cause losses and, once a detachment was across, it would be dangerously isolated. On the other hand, by adopting this course, he achieved his object. In the second case,

he could cross in comparative safety, but he would sacrifice surprise and the Turk could forestall him. Keeping this object steadily before him, he accepted the more imminent risk and thereby succeeded in blocking the MOSUL road. Subsequent events prove that, had he waited to establish a ferry, he would have been opposed by at least a thousand Turks.

On the morning of the 28th October, the brigade was attacked by three thousand Turks advancing from the South. Simultaneously a detachment, four or five hundred strong, threatened it from the North. The former was supported by twenty-four guns with ample ammunition, which they used freely. The 7th Cavalry Brigade was on the way to help, and reinforcements of infantry and artillery from the 18th Division had been asked for, but neither of these could arrive on the scene before the late afternoon. The Commander realized that, if the Turks once closed with him, they could break through and open the road to MOSUL for their main body. It was, therefore, vitally important that the Turks should not be allowed to do so. The best course appeared to be to attack, but this involved a great risk. Were a portion of his force severely handled, the situation would be even more critical. A more timid leader would have hesitated but, again keeping to his object, he accepted the risk and once more he succeeded. The Turkish attack was checked, and time was gained to enable reinforcements to arrive and block the way effectively.

#### *Offensive Action.*

During the period 27th to 30th October, the rôle of the 11th Cavalry Brigade made the occupation of a defensive position necessary. Yet the tactics employed were offensive from start to finish. On the former date, reconnaissance disclosed a Turkish force in position some two miles South of HUWAISH. Had this force been left to its own devices, it would have discovered the weakness of the brigade very soon, and this invaluable information would have altered the Turkish plan so that they would have escaped. Realizing this, the Brigade Commander at once attacked the Turks, thus discovering their strength and dispositions. In spite of the subsequent withdrawal of the attacking troops, the bold tactics so imposed on the Turkish commander that he remained inactive, giving the brigade that which it most needed—time.

On the morning of the 28th October, the Turks advanced to attack. The numerical weakness of the brigade made it vitally important

that the attack should not close with it. A mounted attack was launched immediately against the Turkish left, and the attack ended.

If the offensive had not been taken on the above occasions, it seems probable that the brigade would have failed in its task. In each case, as well as in the attacks of the 7th Hussars at ZRARIYAH on the 24th October, and of the 13th Hussars at CEMETERY HILL on the 29th October, the attack was delivered mounted. In each case it achieved its object with slight loss. This was due to the use of sound tactics, based on speed of advance derived from the horse, on the fullest use of ground to protect the advance, and on the provision of adequate covering fire. The Turks were not demoralized and, in three of the four actions, they were entrenched and ready to receive the attack. These circumstances are worthy of careful consideration.

#### *Surprise.*

Both on the LESSER ZAB on the 24th October, and at HADRANIYAH on the 26th October, the appearance of the 11th Cavalry Brigade came as a complete surprise to the Turks. These surprises were due to good information and to mobility, both of which are dealt with in other paragraphs.

#### *Security.*

Military history offers few better illustrations of the principles of Security than these operations. Every means of obtaining information was carefully organized and used, and energetic offensive action was taken to prevent the Turk from obtaining information. When one method failed to produce the information required, others were at once made use of. There were no instances of "folded hands and fatalism." The Intelligence Service was not controlled by the brigade, but the information it supplied was generally fresh and accurate. Liaison with the co-operating Royal Air Force was good, and observers were kept plied with questions which brought in quick and reliable information. Aeroplanes were used, also, to supplement the signal service, and were particularly useful in transmitting long secret orders and reports. Cavalry patrols and reconnoitring detachments were actively used, and armoured cars watched the country to the west. On the 27th October, an attack by the 23rd Cavalry was launched with the object of discovering the Turkish strength and dispositions. It also had the effect of making the enemy over-cautious and of preventing his active reconnaissance.

The efficiency of the Signal Service, both within the brigade and between the brigade and other formations, is noteworthy. The promptness with which information was received and orders carried out, shows the measure of care and forethought taken in its organization. The Official History remarks on failures in inter-communication between the brigade and other formations. Several failures and delays did occur but, considering the difficulties of the country, the climate, the mobile nature of the operations and the distances involved, these were comparatively unimportant.

The result of these measures was that the brigade always had timely and accurate information about the Turks, while the latter could find out very little about the brigade. In the existing situation this state of affairs was of inestimable value, and lightened the task to no small extent.

#### *Co-operation.*

The action of the Light Armoured Motor Brigade in these operations demonstrates the value of armoured car co-operation to Cavalry. They assisted in reconnaissance, in the protection of the right flank of the HUWAISH position, and in delaying the advance of the Turkish Northern detachment. In spite of the lack of roads, they were able to carry out their allotted tasks, and to relieve the hard pressed horsemen of duties of vital importance to the success of the operation.

The assistance given by the Royal Air Force has been remarked on previously. Although only a few machines were available, these relieved the mounted troops of many duties and enabled the Commander to keep them concentrated for fighting.

In the concluding phases of the battle at SHERQAT and HUWAISH, the Turks were hemmed in by the 11th and 7th Cavalry Brigades, the 18th Divisional Column and the 17th Division. Success depended on the co-operation of the 17th Division in pressing so hard on the Turk that he could not throw his whole weight against, and break through, the weak line of Cavalry across his line of retreat. At the same time, the 18th Divisional Column reinforced the Cavalry and, by enfilading the Turk from positions on the TIGRIS left bank, made it impossible for him to attack directly along the MOSUL road on HUWAISH. In consequence, he had to advance against this position by a circuitous route through the broken ground to the west. This delayed his attack and gave the Cavalry more time. In spite of



the difficulties of ground, weather and supply, and of the distances separating the various forces, co-operation was effective.

These results were largely due to the personality and conduct of the General Officer Commanding, 1st Corps, who, ignoring the fatigue of his troops and the arguments of his subordinates, drove the 17th Division forward in a relentless pursuit. At the same time, the reports and demands sent in by the Commander of the 11th Cavalry Brigade enabled him to appreciate the various situations accurately. The operations show the great difficulties which troops will overcome if commanded by a skilful and determined leader, and if they know the object of their efforts.

#### *Influence of the Commander.*

The difficulties which the 11th Cavalry Brigade had to overcome were many and varied. They included serious natural obstacles, a trying climate and an enemy who out-numbered the brigade by at least three to one, and who was far from demoralized. Although energetic measures were taken to reduce the unknown to a minimum, there were many occasions when the situation was very uncertain and critical.

The general impression obtained from reading the story of the operations is of precise and confident action, a remarkable difference from that given by the earlier cavalry actions in this theatre of war. This was due to the personality of the Commander of the 11th Cavalry Brigade. Here was a man who knew the power of the arm he commanded, a psychologist who knew how to confound and mislead his opponent, and one who never showed doubts or fears, if he had any, to his subordinates. He inspired his troops with complete confidence both in him and in themselves, so that they ignored difficulties and hardships alike. At the close of the critical period, they were not worn out, but were able to undertake a vigorous pursuit which, had the armistice not intervened, would have led to the complete destruction of the remaining Turkish forces in MESOPOTAMIA.

## “ ELIMINATE THE OBSOLETE.”

By

CAPTAIN A. G. FULLER, 1/20TH BURMA RIFLES.

During the past decade army organization and training have undergone a most profound change, and it is manifest that so long as science has contributions to offer in the form of invention, thus adding additional weapons to the military machine, the horizon of a suitable organization for modern requirements will continue to recede. While facts are of the past, fancies will always be of the future. Scientific discoveries will proceed apace, and their adaptation to military science in peace will be limited by the financial factor. Those responsible for our army organization must therefore be content with an activity directed towards the modernization of our army so far as finance will allow. This must be sufficient to meet the eventualities of the present, and those which are likely to arise in the near future.

As the lessons of the Great War are being absorbed the process of modernization is proceeding, and many of these lessons are reflected in the composition of units which comprise the army to-day. Increased fire power within an infantry battalion has become a necessity, and this has led to the elimination of one rifle company and the substitution of a machine-gun company. A further increase in fire production throughout the army many necessitate armoured protection for men, while ways and means of increasing mobility must constantly be explored. These two factors of mobility and protection are at cross purposes, but it is probably not too much to say that we may hope the machine will so increase the mobility of men as to overcome the slowness in movement which their material protection will involve.

The increase in the number of weapons by which additional fire power is to be obtained, and the necessity of their being taught to all ranks, has led to a great increase in training in infantry battalions, which are now hard put to it to complete their syllabus of instruction within the year, to say nothing of producing what modern conditions are beginning to demand, an almost super-infantry soldier. Present day needs have therefore brought with them a new demand, the need for more time. Time is one of the things man cannot make

although he has harnessed it to his requirements. He can, however, save it. It is suggested that time can be saved in our training by at least three means :—

1. By cutting down the training.
2. By spreading it over a longer period.
3. By eliminating the obsolete, thus saving time for essentials.

As regards 1. In recent years modifications have been made in the weapon training courses, and a certain amount of time has been saved thereby. But where efficiency is at stake modification is a dangerous expedient. What appears to be more necessary is reform both in ideas and methods.

As regards 2. This aspect needs careful study, and suggests biennial training, but it is doubtful whether such a drastic step as this is yet necessary.

As regards 3. It is suggested that much valuable time can be saved by the elimination of obsolete forms of drill, and the remainder of this article will deal with the drill aspect.

Why should reform in drill be considered necessary? When war broke out sixteen years ago the four-company organization had but recently been adopted. The drill of to-day differs in no material aspect from the drill of those days, although we find considerable differences, not only in the strength of battalions, but also in their organization and composition. This seems to point to the fact that while we have progressed in our organization for war, our peace training has lagged behind. It is suggested that drill should not be regarded as the chief means for inculcating discipline or of enabling units to move in mass formations on the parade ground. It must go farther than this. It is contended that the drill of the present day must always be capable of adaptation to battle conditions, and purely ceremonial drill take a back seat, for it is there that valuable time appears to be wasted. We must not lose sight of the end to which all our training is directed—war. Training which has not this end in view can have no place in the modern curriculum. This gives us an indication of the lines on which we can proceed. We must eliminate movements which have no direct bearing on our war training. Our present drill system includes the formation of units (companies and battalions) in mass, and of smaller units in line. Then their transformation to fours, and then to column of fours or column of route. Not till this has been achieved have we anything approaching the usual

formation by which units are moved in war, whether they be platoons, companies, battalions, brigades, divisions or even corps.

Column of route on the march, except on abnormally wide roads which are the exception, takes up a good half of the road, and is constantly being "pushed over" to allow approaching and over-taking vehicles to pass. With the increase in the number and size of these vehicles, not only in the army but in civil life as well, this process of "pushing over" will be accentuated, and greater inconvenience to the troops will result. With the large increase in Mechanical Transport vehicles which modern army requirements now demand, troops must expect to be met and passed from the rear by considerably augmented columns of mechanical traffic, and confusion and blocks on the roads, good traffic control notwithstanding, will frequently occur. What is the inference? It appears to be that since the width of roads cannot be increased a reduction in the width of the marching column is indicated.

This suggests that the present column of route *i.e.*, fours, is not entirely suitable for present day requirements. The alternative appears to be either to march in file or in a column of threes. A column in file is clearly not suitable. It would make a column excessively long and lessen the control of subordinate commanders. These difficulties would not be so apparent in a column of threes, which would give more room for vehicles to pass on the march. This idea of threes for column of route has been propounded before but it is suggested that it can be applied to the parade ground thus bringing our drill into line with war requirements, and so saving much time in peace by the elimination of obsolete drill. Consider the following movements in Infantry Training, Volume I, Section 105:—

Change direction right, right wheel.

Move to the right in column of fours, etc.

On the left, form line.

Line outwards.

At the halt, facing left, form line.

Advance in column.

Retire in column.

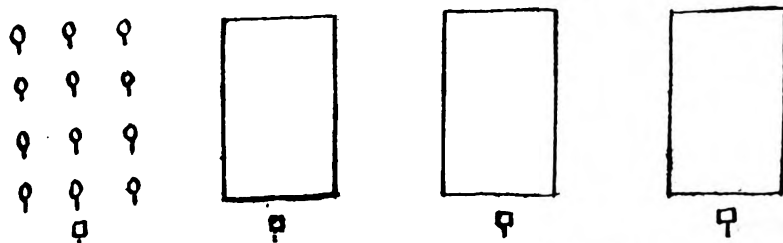
Form close column.

Close on No....platoon.

The above are carried out from a formation which is not a fighting formation, *i.e.*, column or close column of platoons, and under modern conditions they never can be fighting formations. Units so paraded in war would be subject to extremely heavy losses.

From these examples it is seen that two movements are required before a war formation, column of fours or column of route, can be assumed. The first example quoted is probably the most difficult of all drill movement to execute, although placed first in the book. It requires a long time to perfect, and its war value appears to be entirely negative. The same applies with equal force to other movements in column and line, all of which possess the virtue of being different in design, but none is desirable to meet tactical situations in the field. The contention is that all movements which commence from a mass formation, the component units of which are in line, column or close column, are useless for war purposes, and that the time now consumed on their teaching can be saved for more essential work. If this is so some formation must be found by which units can "fall in" and at the same time be in a formation from which they can move forward at once to meet any tactical situation. It is suggested that a formation in column or small columns will fulfil this requirement, and, if it is conceded that a column of threes is more suitable for a marching column than the present column of fours, let us adopt it as a basis on which a new drill can be raised. Instead of close column or column of platoons, let us substitute column of threes, and let us so work out our system that all movements of which it is capable in peace shall be equally applicable, without modification, in war. This will at once eliminate the need for forming fours. It may be a delight of the drill sergeant, but is probably responsible for more waste of time than any other movement, and introduces complications in drill which often lead to much confusion. Even an extension from column of fours cannot be carried out until all have "formed two deep." A few examples are given of how a system based on column of threes could be made to work.

*A formation in which a company could "fall in."*



On the command "fall in," platoons fall in in column of threes, take up their own dressing and cover off. This eliminates numbering

and proving and is easily learned. Column distance at least should be preserved between platoons, for if the company is required to move to the right or left in column of route, all platoons can wheel at once in the required direction without waiting to get their distances. The company can get into square or diamond formation in the minimum of time by doubling forwards and outwards. Compare this with the time it now takes to deploy from our present close column of platoons.

For inspection the command could be "Open order-march." The two outer files would take two paces outwards. Movements from the above.

"By the right (or left) quick march. No. 1 (or any other platoon, to the front), remainder right or left wheel." "Open to... paces, quick march."

"Advance in square, quick march." Nos. 2 and 3 platoons move off and wheel to the right and left to cover Nos. 1 and 3 platoons.

"Advance in diamond formation, quick march." Nos. 1, 3 and 4 platoons move forward.

Movements additional to the above will readily suggest themselves. It is immaterial which platoon leads, neither does the question of whether the rear rank is in front or not arise, for since the column is in threes there is no necessity to form two-deep. These movements are essentially battle drill movements. Discipline can be just as well inculcated with a few movements as with many. It is not quantity but quality which counts. Good covering and dressing on the march is paramount, and this receives more attention than ever under such a type of movements. No formation which does not approximate to a battle formation should be admitted, for our object is to eliminate the obsolete and concentrate on the things that matter.

All that need be taught for section and platoon drill is falling in, covering in threes, dressing by both flanks and a few simple movements on the above lines. The hours spent in forming fours and two-deep, both stationary and on the march, will be saved. The need for battle drill in addition to what may be called parade ground drill will not arise, for battle drill will be the basis of the new system. All movements should be done at first in quick time, leading up eventually to their execution at the double. In a system such as this there is no room for ceremonial drill. There are many who will regret its disappearance, but the rare occasions on which it is used do not seem to

justify its inclusion. At any rate there is no time for it. There is no reason why a line in threes should not meet any situation equally well. A feu de joie can be fired by three ranks, or the centre or rear rank need not fire at all. And why not adhere to our new idea of war training drill by marching past in our new column of route, column of threes? If march discipline and all that it implies is the ceremonial of war, why can it not be the ceremonial of peace too?

This leads us to a brief consideration of battalion drill. Here the same principles could be applied. The recent elimination of a rifle company and the introduction of a machine-gun company makes our present battalion drill, apart from any other considerations, obsolete. In place of the present unwieldy formation of mass, why not get nearer our war idea by forming up in square or diamond, with companies in column of threes, from which dispersal will be easy and deployment to smaller units a simple matter? Those movements which have been suggested for companies can equally well apply to battalions. Apart from regular battalions, such a system, where simplicity and the elimination of the obsolete is the ruling note, would be a boon to Territorial Units. Recruits drill would be reduced by 50 per cent. and time saved for more essential work.

The movements suggested are obviously not exhaustive, but the lines of development seem to be clear. Additions can be made as necessity demands, and these can be left to the expert.

## THE DEVELOPMENT OF THE HEAVY TRANSPORT AEROPLANE.

By

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It is only recently that the Air Ministry have brought into use the term "Heavy Transport" as a name for the large multi-engined the general utility weight-carrying type of aeroplane. The change of title has introduced no immediate change in design, for the Troop-carrying Vickers "Victoria" aircraft, which represent our Heavy Transports of to-day, are still in active use as a service type in Iraq and Egypt. But the change is of significance none the less, since it awards a more appropriate title to a type which has been steadily increasing its sphere of usefulness since the war.

The history of its introduction overseas dates from the movement of a small number of heavy night bombers to the Middle East at the later stages of the war. Their long endurance and weight-lifting power were found to be of considerable value in providing communication over the big distances existing in overseas theatres. For this reason, when the reorganisation of Commands took place after the war, two squadrons of these types were included in the Middle East and Iraq garrisons. It was not until October 1922, when the Royal Air Force took over military responsibility for Iraq that the possibilities of the Heavy Transport type began to be fully realised. The existence of the three Air Force Commands of Egypt, Trans-Jordan and Iraq in their adjacent positions, and yet separated by relatively great distances, emphasised the importance of air communication and inter-dependence.

The first step was a line of air communications between Cairo and Baghdad, through Palestine and Trans-Jordan. The air route was started with the twin-engined Vickers "Vimy" and run with remarkable success from the beginning. It was used primarily for mails, but became of increasing importance in the carriage of service or distinguished passengers. In other directions also the weight-carrying aircraft had given indications of its possibilities. Emergency supplies for outlying garrisons had been delivered; small parties of troops



flown long distances at short notice; casualties evacuated by air. It was a logical development, therefore, when, to meet these varying supply problems, a special type was designed. The first of the line was the Vickers "Vernon," followed later by a larger edition, the "Victoria." The "Victoria" is a large twin-engined aircraft, having a big plane area with a high lift wing section. The fuselage is of considerable proportions and of oval shape, the interior somewhat resembling the inside of an electric tram. It has the following performance:—

Speed 70 m. p. h. (cruising).

Ceiling 9,000 feet.

Maximum weight-lifting capacity—28 troops with equipment  
or 5,500 lbs. supplies.

Endurance—9 hours (full tanks—reduced load).

These aircraft fully justified their introduction. As troop carriers, they have distinguished themselves on many occasions. The following examples will show their value for concentrating ground forces rapidly where their presence is immediately required to prevent the spread of trouble. The first occasion was in Iraq in 1923, when two companies of Indian Infantry were flown to Kirkuk at a time when the roads were impassable. Another was the sudden affray between the Assyrian levies and the Moslem townfolk, also in Kirkuk, when the situation was restored by two platoons flown from Baghdad the same day, and followed by further platoons a few hours afterwards. A third was the transfer in seven hours of two platoons of troops from Cairo to Jerusalem on the outbreak of the recent Palestine disturbances. A remarkable demonstration of the capacity of this type was also given when the Victorias of No. 70 (Bomber) Squadron flew from Iraq to India and carried out the evacuations from Kabul in the winter of 1928. In addition to these, more regular, duties, freight carrying aircraft have on occasions obliged by lifting such varying commodities as a Ford car, aero-engines, massed bands in full play, a mule, football teams and a live lion.

But the main justification for the Heavy Transport type in the overseas Commands is the strategic mobility it confers on Air Force Squadrons. No garrison in the Empire can be expected to deal with every contingency which may threaten it without assistance. The

Air Force units overseas are accordingly linked by air routes and organised so that reinforcing squadrons may be flown to any theatre of operation in these Commands, and operated from Wing Stations in a few hours after arrival. Such air routes stretch from Egypt to Singapore. A squadron of bombers, however, is of small value to a formation engaged on operations if it arrives with its bare air unit of aeroplanes, pilots, and air gunners. Stores, petrol accommodation, transport and aerodrome facilities can be provided, but present day personnel establishments, owing to financial stringency, are calculated to the barest minimum for the efficient working of a unit in peace, and are quite inadequate to operate additional units at short notice.

Rapid mobility of an Air Force Squadron depends, therefore, on the simultaneous movement of certain of the Squadron ground personnel and essential items of operating equipment. Herein lies the value of the Heavy Transport aircraft. Three of these aircraft can carry sufficient personnel and equipment to enable the squadron to operate efficiently from a Wing Station, pending reinforcement by other means of transport. If the crews of the squadron's aircraft are included, and those of the three Victorias excluded, a total of 57 officers and airmen can be transported in this manner. The remainder of the disposable load must be allotted to squadron stores, kit, rations and desert equipment for use *en route*. The airmen taken are N. C. O's, aircraft crews, armourers and air gunners.

The Heavy Transport aeroplane has, in this way, become an almost essential requirement in all R. A. F. overseas Commands. The squadrons of this type in Iraq and Egypt have been maintained in full use, but until this year, no unit has been formed in India. The probable reason for this is that the existing design possesses two disadvantages. Firstly, it is expensive, and secondly, it is a specialist and additional type. In a Command which is as distant as India from its aircraft manufacturing centre, it is imperative to keep down the number of types of aircraft and engines. Unless this is done, the work at the Aircraft and Engine Repair Depot becomes extremely complicated and much increased. The difficulties of supply to make good wastage and factors such as mobility, and the varied duties which aircraft have to perform have also tended to make each class of aircraft a general purpose machine. Purely specialist aircraft are an expensive, although sometimes essential, luxury.

There is, however, more than one design under trial at present which, if substituted for the "Victoria," would, as a general purpose type, combine the following functions:—

Freight and petrol carrier.

Troop carrier and ambulance.

Long distance bomber day or night.

Frontier control duties.

Although figures are not available we can assume from the results which have been obtained with modern power units in similar types that such an aircraft will have a minimum performance as follows:—

Full Speed	..	..130 m.p.h. at 10,000 feet.
Cruising Speed	..	.. 90 m. p. h. at 10,000 feet.
Ceiling	..	..20,000 feet.

Gross useful load, including petrol, 8,300lbs.

The following is a review of the possible applications of an aircraft of this type if employed in a Command such as India.

*(a) As a troop carrier and ambulance.*

It can be assumed that this aircraft will be capable of transporting a minimum of 28 troops with arms over a maximum distance of 200 miles. By cutting down the personnel carried by one-third, the distance may be increased up to, say, a maximum of 1,000 miles. The value of being able to move troops by air lies not so greatly in the ease and comparative comfort in which this can be done, as in the speed. There are many instances in history where an outbreak which afterwards developed into a serious disturbance could have been checked had only a handful of troops been available on the spot to control it. The sobering effect of the prompt appearance of troops and show of Government strength on mob psychology is usually immediate. One or more platoons flown immediately to a danger area may thus nip serious trouble in the bud, and avoid the necessity of despatching large punitive columns at a later date. The additional carrying power of improved type Heavy Transport machines will enable reinforcing squadrons, flown from distant Commands, to be more self-contained, and their extra speed will permit them to accompany the aircraft of the squadron they are transporting.

The organisation for emplaning and deplaning in connection with troop carrying may be of interest, and the orders and data compiled in Iraq in 1924 are attached as an appendix. Our new design can be

assumed to permit considerably greater space and comfort than the existing Victoria. It should also allow lying-down accommodation for six stretcher cases when the aircraft is required for ambulance duties.

*(b) As a freight and petrol carrier.*

By ingenious internal stowage and specially designed fittings, existing transport aircraft have been adapted to carry a variety of heavy stores. It should be possible in improved designs to arrange to carry two or more aircraft engines or spare petrol tanks up to a total of 1,500 gallons, various aircraft spares or bulk stores up to a total weight of  $2\frac{1}{2}$  tons (for distances under 200 miles). The uses of aircraft with these qualifications are many. They could fully maintain air squadrons from a distant base when communications had broken down; they could provision or re-ammunition outlying or beleaguered garrisons, carry out transport duties in moving squadrons (already referred to) or, if desired, undertake a long distance flight of 2,500 miles by coupling up the detachable petrol carriers used for supply purposes.

*(c) As a bomber.*

*(i) Long distance bombing duties.*

A multi-engined machine properly armed and possessing high performance is an extremely difficult aircraft to attack, and is, at the same time, an excellent bombing platform. Flying in formation with a suitable distribution of machine and heavier guns, it is a battle unit which requires a very superior force of fighters to turn it from its objective. Its weight-lifting ability makes the dropping of very large bombs with enormous capacity for material destruction a possibility. Its bomb load of approximately 3,000lbs. as a night bomber will be equivalent to over six loads of the present type day bombers. The use of such aircraft for these duties cannot be other than economical.

*(ii) For Frontier control.*

The general purpose Heavy Transport aircraft has considerable potentialities for frontier control duties. In the first place, its long endurance enables it to remain at a safe height over the hostile area for several hours with a large load of small bombs. By keeping the hostile tribesmen under cover continuously for long periods, the moral effect is much increased. The tribesman has no opportunity to attend to the wants of his cattle, his crops, or to remove his valuables during the intervals between the usual aircraft attacks. The harassing

effects and cumulative strain on his daily life is considerable and his resistance accordingly reduced. In night operations, the pressure can similarly be maintained throughout the hours of darkness. In the case of a very recalcitrant section when it becomes necessary, as a punitive measure, to destroy a village, the big machine can achieve the object more speedily by using heavy type bombs that the ordinary bomber cannot carry.

*Conclusion.*

It may be argued, therefore, that if the Heavy Transport aeroplane develops on these lines, its rôle is no longer that of a supplementary unit to the striking force. It now possesses, not only an almost unlimited capacity for usefulness in both peace and war, but a striking power which is an extremely valuable addition to our bombing strength in any type of operation. Taking these facts into consideration and the economies that would become possible in many directions, no major overseas Air Command can be regarded as adequately equipped unless this type is included in its strength. For India in particular, with its long external and weak internal communications, possibilities of internal unrest, its tribal territory to control and a frontier to defend, it appears to be peculiarly well adapted.

APPENDIX.

EXTRACT FROM ORDERS ISSUED BY IRAQ COMMAND,  
1924.

1. MOVEMENTS BY AEROPLANE.

(A) *General Rules.*

1. The movement of troops by aeroplane will be confined to dismounted personnel.

The general principles are similar to those for movements by rail and by Mechanical Transport.

2. One broad essential to efficient and successful co-operation is universal ; military requirements should be clearly conveyed through *one* recognised channel to the Royal Air Force, which will then be left to make the best provision possible to meet those requirements.

3. Moves by aeroplanes may be made :—

- (i) To and from areas ill-provided with railways and roads.
- (ii) To withdraw casualties from the battle-area, in areas ill-provided with roads.
- (iii) To reinforce quickly or to seize important tactical points or to relieve exhausted troops when railways are non-existent or unsuitable, or when distances are too great or roads unsuitable for Mechanical Transport.

4. Troop-carrying aeroplanes are especially vulnerable to attack from the air and ground, and whilst the Royal Air Force will be responsible for providing protection when in the air, the O. C. Troops emplaning or deplaning will be responsible for the protection of troops and aeroplanes whilst either operation is being carried out.

5. The distance of move by aeroplanes is only governed by the capacity of the aeroplanes to replenish its fuel.

6. Troops moving by aeroplanes will normally be without the baggage carried by Mechanical and horse transport for some days.

Lewis guns, ammunition, rations and all impedimenta required for immediate use will therefore have to be carried by the troops, unless transport can be requisitioned on arrival at destination.

*(B) Rules for Troops (Emplaning and Deplaning.)*

1. The points at which troops join and leave aeroplanes are known as emplaning and deplaning points respectively. These points will normally be recognised landing grounds.

2. Careful pre-arrangement is essential for efficiency in movements by aeroplanes, though in exceptional circumstances this may be impossible.

The following require special attention:—

- (i) The obtaining from the R. A. F. of the number of aeroplanes to be employed, their troop-carrying capacity in lbs. avoirdupois, identification number of each aeroplanes, and the time at which emplaning is to commence.
- (ii) The position on the emplaning point where the R. A. F. require troops to be drawn up, for emplaning.
- (iii) Troops to be emplaned will be told off into groups, the total weight of which inclusive of equipment, arms, ammunition, rations and other impedimenta will not exceed the troop carrying capacity of each aeroplane.
- (iv) When possible, section and platoon organization will be maintained.
- (v) No Lewis guns or ammunition will proceed unaccompanied by troops.
- (vi) No troops will be on the emplaning point until the R. A. F. intimate that the aeroplanes are ready to receive troops and stores.
- (vii) Prior to emplaning, troops will remove their packs and carry them.
- (viii) Normally, emplaning will be supervised by the R. A. F. personnel, who will explain to the officer or N. C. O. in charge of each group the Standing Orders for passengers.
- (ix) An Officer or N. C. O. will travel in each aeroplane carrying troops.
- (x) One day's reserve rations will be carried by troops emplaning.
- (xi) Prior to emplaning, groups will fall in on the Port Side of each aeroplane and await orders to emplane.

3. Formed bodies of individuals are not to remain at an emplaning or deplaning point, nor, in the vicinity of it, a moment longer than is necessary.

*(C) Duties of Group Commanders.*

1. Group Commanders, whether Officers or N. C. O.'s, will superintend the emplaning and deplaning of their groups.

2. They will ensure that the orders of the R. A. F. personnel supervising the emplaning or deplaning are carried out.

*II.—Form for Emplaning of Troops.*

Following aircraft are allotted for passage of troops, stores to.....leaving.....at times stated.

Loading will commence 15 minutes before departure.

Squadron No.....

Aircraft.	Capacity in lbs.	Loads.*	Time of Departure.
Vernon No. ..	2,000 lbs.	7 men. 2 machine- guns.	6.10
Vernon No. ..	..	..	06.15
Victoria No. ..	4,000 lbs.	12 men. Machine- gun sub- section.	06.20

\*To be filled in by Army Unit.

The Officer Commanding Troops is responsible that the weight of load allotted to each aeroplane does not exceed the authorized capacity.

*Instructions to Passengers.*

(Smoking, matches, etc.)

Signature of R. A. F.  
Unit Commander

Signature of Army  
Unit Commander.



*III. Notes on Emplaning Troops.*

(i). Kit and S. A. A. carried by each W. O., N.C.O., and Soldier :—

<i>In Pack.</i>	<i>In Haversack.</i>
Holdall complete (less knife, fork and spoon).	Knife, fork and spoon.
Mess-tin	1 plate.
2 prs. socks.	1 day's rations (including one loaf bread, one M. and V. ration).
1 shirt.	
1 towel and soap.	
Housewife.	
Bootlaces.	(Remaining groceries, <i>e.g.</i> , tea, sugar, milk and bacon to be carried by one man in each party).
Cleaning kit.	
Forage cap I. P.	

One blanket folded on back of pack, one box respirator on top of pack, 100 rounds S. A. A. in pouches.

<i>(ii) Weights.</i>	lbs.
Rifleman's equipment including pack and haversack both packed as in (i) above, rifle, 100 rounds S. A. A. and a box respirator .. .. .	42
Lewis gunner's equipment, as for above but revolver instead of rifle .. .. .	32
Average weight per man, armed and equipped ..	180
Lewis gun in chest .. .. .	74
Two boxes, carriers magazine for 1 Lewis gun, containing 4 loaded magazines, and 12 unloaded magazines in web carriers .. .. .	58
Spare parts bag, Lewis gun .. .. .	12

It was found that a platoon of 28 of all ranks had a maximum weight of 5,500 lbs. made up as follows :—

28 personnel at 180lbs. per individual ..	5,040
2 Lewis guns in chests at 74lbs. each ..	148
4 boxes, carrier magazine, for 2 Lewis guns ..	116
2 spare parts bags at 12lbs. each .. ..	24
Officers' baggage, etc. .. .. .	100

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**Total 5,428.**  
**Say 5,500lbs.**

## MACHINE GUNS AND OFFENSIVE TACTICS IN MOBILE WARFARE.

By

CAPTAIN H. L. H. BOUSTEAD, THE ESSEX REGIMENT.

### 1. *Fire Power and Man Power.*

A study of military history will clearly show two schools of thought, the one advocating weight of numbers, the other weight of fire. Without citing numerous examples, it is interesting to note that Napoleon, one of the greatest exponents of the principle of mobility, never really appreciated the importance of fire power but was ever an advocate of weight of numbers. He used mobility to bring superior concentrations on to the field of battle and carried the day by massed assaults. Owing to the weak fire power of his earlier opponents, his tactics were for a time successful but ultimately proved his downfall. At Waterloo, his massed assaults finally broke down before the superior fire power of his opponents and, driven from the field, his last request was for 300,000 men, always numbers, to restore the situation. A century later, the dominance of fire still unappreciated, the Germans sought a speedy decision in the Great War by weight of numbers and failed. The whole history of the war shows the gradual realization of the futility of the massed assault, and the gradual appreciation of the superiority of fire power and the ultimate lesson now incorporated in the text books "Fire is the dominant factor in modern war."

### 2. *The New Infantry Organization.*

The power of modern weapons is ever increasing; the vulnerability of the man remains the same. To attempt to gain superiority by an increase of numbers does not increase fire power proportionally and entails ruinous losses. The solution must be to increase fire power without increasing numbers. Modern mechanical weapons have made this possible. The outcome is the new infantry organization with its increase in machine guns-fire power, and decrease in bayonet strength-man power. It is intended neither to compare the Home war establishments with those in India nor to argue that the small provisional increase of machine-guns in India does not compensate in fire power for the decrease in rifles entailed, but to assume that the policy, subject,

to the inevitable financial restrictions, is definitely to increase fire power and reduce man power. The first principle in modern tactics must, therefore, be to economise man power, that is bayonets.

### 3. *The Characteristics of the Machine Gun.*

As the machine-gun is the weapon selected to increase the fire power of the infantry, it is necessary to consider it more closely. The characteristics of the gun are enumerated in the Manuals and need not here be recapitulated in detail. In considering infantry tactics, the following points based on those characteristics are of outstanding importance :—

- (a) "The machine-gun is the most valuable of all the weapons used in defence against infantry ; so long as it is in action the area of ground swept by its fire is rendered practically impassable by infantry."
- (b) The machine-gun is extremely conspicuous and vulnerable during transport.
- (c) The machine-gun bullet has a very flat trajectory.
- (d) The machine-gun has no destructive power against troops in bullet-proof cover. Its effect can only neutralise.

The deduction from the first point is that the machine-gun is eminently capable of preventing hostile movement in the open. Up to a range of about 1,000 yards its fire is literally annihilating. Its most powerful rôle is therefore in defence. War can only be won by offensive action, but it would be futile to discuss offensive tactics without first considering the type of resistance likely to be encountered. It is proposed first to examine the general system of defensive organization and, then, in the light of the knowledge gained, to discover the offensive tactics most likely to prove successful.

### 4. *Defensive Organization.*

Defence is in many ways the strongest form of warfare. Were it not so, no commander would ever adopt a defensive rôle. In mobile warfare, defence, although in depth, is in point of fact the defence of a line, the line of foremost defended localities, the forward edge of the position. The fire of all arms is co-ordinated to stop a hostile attack before it reaches this line. Machine-guns, the most powerful defensive weapon, form the framework of the position and act in a dual rôle ; firstly, forward guns to lock the line with cross fire ; secondly, guns

in depth to thicken up the fire of the forward guns, to deal with hostile penetration and to support counter-attacks. The infantry echeloned in depth fill the gaps in the machine-gun framework. The artillery super-impose their fire in front of the line, paying special attention to areas defiladed owing to flatness of trajectory from small arms fire. Mobile reserves of fire power and man power are kept in hand to meet eventualities. Such, briefly, is the organization.

5. *Forward Machine Guns in Defence.*

The rôle of forward machine-guns is of such vital importance as to require further explanation. The following points in their employment are essential :—

- (a) They must be sited well forward in order to enfilade the line as closely as possible.
- (b) They must be sited low in order to obtain grazing effect.
- (c) They must be defiladed either naturally or artificially, so as to be invisible and protected from the front.
- (d) They must be locally protected by infantry posts to prevent them from being rushed.
- (e) They must only fire at annihilating ranges, that is up to about 1,000 yards.

Each forward machine-gun unit is allotted an arc of fire obliquely in front of the line. The outer flank of the arc would be roughly 300 yards in front of the line. The inner flank would clear the line by the minimum flanking clearance and would be the primary or S. O. S. line during darkness and the like. The arcs of the forward units being interlaced an almost impenetrable belt of machine-gun fire to a depth of 300 yards is placed in front of the line. No forward gun discloses its position by an early opening of fire but remains literally in ambush until it can fire to annihilate. In fact, the spirit of the defence is the spirit of the ambush. Such, then, is the power of the defence. The increase in machine-guns has greatly enhanced its strength. As long as the forward machine-guns remain in action, it seems impossible that any attack infantry could succeed.

6. *The Offensive Power of the Machine Gun.*

In full realization of the strength of the defence, the problem of suitable offensive tactics can now be tackled. The guiding principle is to economise man power by offensive fire power. What qualifications, then, has the machine-gun, the main source of infantry fire

power, as an offensive weapon ? Let it support the attacking troops from behind with overhead fire ; the flatness of trajectory will not admit of it giving them the close support they require. Let it lead the attack ; it is so conspicuous and vulnerable during movement, that its advance will be very short lived. Prior to the attack, let it annihilate the enemy with fire ; the enemy has scanty but bullet-proof cover, against which the machine-gun has no destructive power. It would appear that the offensive power of the machine-gun is very limited but, before accepting this as a fact, the teaching of the Small Arms School must first be considered.

#### 7. *The Netheravon Point of View.*

The following extract is taken verbatim from a lecture delivered to Senior Officers at the Small Arms School, Netheravon :—

“Take the case of overhead fire delivered from straight behind the attacking troops. Its utility is sometimes doubted, as it must be lifted 300 to 400 yards before the attackers reach the objective. I think, that, if we put ourselves in the shoes of the defenders, our outlook on this subject may alter. Imagine ourselves the defenders of forward localities with imperfect cover. The attack is seen approaching 1,000 yards away, you are smothered with machine-gun bullets—no defender can raise his head—the fire power of the defence is neutralised. The attack gets closer and closer. The morale of the defence begins to be shaken. At a given moment the hail of machine-gun bullets lifts say 300 yards on to the reserves. The bullets will still be going pretty close. The attackers having in the early stages of the attack secured domination of fire will be busy with their rifles and light automatics. I suggest to you that the defenders will take an appreciable time to realize that the machine-gun fire has lifted, will be chary of lifting their heads and having once lost domination of fire will not recover it. Hence the machine-gun has great offensive qualities. Where frontal overhead fire is alone possible, its fire power will gain such domination of fire in the early stages as will enable the infantry to maintain it with their own weapons.”

#### 8. *The Limited Offensive Power of the Machine Gun.*

The official manuals state that infantry only require 100 to 150 yards to stop a hostile attack. If the hostile machine-guns lift when the attack is 300 to 400 yards away, surely the defenders have ample time to realize that they have lifted and to stop the attack with their

fire. The forward machine-guns of the defence open fire at approximately the time of this lift and this would be a sure indication to the other infantry posts. But, in the words of the lecturer, let us put ourselves in the shoes of the defenders. I am the No. 1 of a forward machine-gun. I am in a perfectly defiladed position. I am looking out over my arc which lies obliquely in front of the line. My gun is loaded and provisionally layed on the outer flank of my arc at a range of 800 yards. My closely defiladed position prevents me seeing much beyond the outer flank of my arc. I cannot see to my front at all but I know that other forward guns are covering it. Hostile machine-guns are firing but their bullets are harmlessly striking the small rise which defilades my position. Some of our rearward machine-guns are replying but the rest of the infantry posts remain silent and under cover. At long range, beyond the far limit of my arc, I see the enemy's attack developing against a neighbouring unit. This is not my job. I must wait for my opportunity. After a time, an enemy section suddenly appears, rushes into my arc and drops down in cover. I can enfilade the cover. This is my chance. In goes the thumb-piece. So much for them! Others follow and share a similar fate. This is easy work. So it is in any well sited ambush. All the other forward infantry posts have suddenly sprung to life. The attack is dwindling to nothing.

This picture is scarcely overdrawn. There is little doubt that no attack can succeed as long as the forward machine-guns of the defence remain in action. As the attacking machine-guns are powerless to deal with them, other means must be sought.

#### 9. *The Offensive Power of Artillery.*

Artillery is the principle means of obtaining superiority of fire and enabling the infantry to advance. The advantage of shell fire over small arms fire is that, whereas the latter is only destructive against troops in the open, the former can destroy them in bullet-proof cover and can deal with defiladed positions. Artillery can shoot to destroy in two ways, firstly, by using direct observation, secondly, by obliterating a certain area with an enormous concentration of fire. The object is to destroy the forward machine-guns of the defence. In order to employ the first method, the artillery observer must approach to within about 400 yards of the foremost line of defence before he can find out the position of the foremost machine-guns. This in itself is no easy matter and, in addition, he has to contend with

one of the greatest difficulties with which artillery is faced, that of communicating the necessary fire orders back to the guns. This method can seldom succeed. The alternative is by a heavy bombardment to annihilate a limited area and so force a gap in the defensive position. This system is a relic of artillery tactics employed during static conditions in the Great War but remains much in evidence to-day, where the tendency seems to be to mass the whole artillery of a division on a brigade or even a battalion front and so blast a way through. It has distinct possibilities, especially as it may enable machine-guns to be pushed up into the gap, from which they can enfilade the defensive position. Unless the gap is large, these machine-guns owing to their vulnerability will probably have to move up under cover of smoke. On the other hand it has great limitations. It entails a vast expenditure of ammunition, more than normally can be spared in mobile warfare. It means the later stages of the attack must go short of artillery support. It leaves a strong element of doubt as to whether or not it has been totally effective. Lastly, it clearly indicates to the defenders the proposed point of attack. Normally it should only be used for forcing a defile. Artillery does not, it appears, entirely solve the problem of offensive tactics.

#### 10. *Other Means of Offence.*

Direct fire is the normal and most effective way of engaging a target with machine-guns. The use of indirect fire means loss of fire effect ; especially is this the case when the target cannot even be seen from the observing post, as for instance during darkness. At night the forward machine-guns of the defence are forced to fire on a primary or S. O. S. line. Owing to the narrowness of the beaten zone it is literally a line, and, if the guns are sighted low and fire at short range, it has great length. Two machine-guns can effectively cover a length of about 800 yards. The machine-gun is capable of sustained fire but it cannot go on indefinitely without temporary and, at times, quite prolonged cessation. Under cover of darkness or smoke, the attackers by awaiting their opportunity have every chance of jumping the primary lines and getting to grips with the defenders. On the other hand, a night attack, is a very hazardous undertaking even with well-trained troops, and offensive operations at night are more usually confined to an advance as a preliminary to a dawn attack. Fortune favours the bold but it seems that the odds remain in favour of the defenders, provided their position is reasonably well organised and

their front well patrolled. Much the same applies to smoke. Further, it is often an unreliable weapon and may do as much harm to the attackers as to the defenders. Its extensive use in open warfare is impossible owing to the scarcity of the means of producing it. Its limited use for purposes such as that mentioned in the last paragraph may be helpful, but not vital, in making the attack a success. Other means of breaking the defence exist. They all have their exits and their entrances but they all have their antidotes. Gas is countered by the respirator, armoured fighting vehicles by the anti-tank gun and the hostile tank.

Assuming that the defenders are of equal armament and morale as the attackers, then the defence still holds the cards.

#### 11. *The Futility of the Frontal Attack.*

The main disadvantage of the defence is that it entails sacrificing the initiative. The same is true of the ambush, which can only succeed when the enemy takes some definitely anticipated line of action. A commander, who assumes the defensive, can only achieve success, provided the enemy attack him. He literally invites them to do so, intending to smash their attack and regain the initiative with his counter-stroke. Any yet in our present peace time training, faced with the enemy's defensive position, our attack is almost invariably launched straight into the ambush. The same stereotyped orders are issued for the attack, orders based on the "box," a box as square as the French columns at Waterloo. Within the square personnel are necessarily more dispersed owing to the increased fire power of modern weapons, but the principle of the attack remains the same and is doomed to failure. The frontal attack died on the field of Waterloo. An immediate attack in flank can be little more successful, as the defender can organize the line of his flank just as strongly and on the same principle as his foremost line of defence.

It may be asserted that frontal attacks have been successful in the past and will repeat that success in the future. The truth of this assertion is in no wise doubted, but it must be remembered that moral qualities are more than half the victory. Superior morale has often overcome superior opposition; for instance, the successful landing on Gallipoli was entirely due to the outstanding bravery displayed by the troops in the teeth of the most tremendous difficulties. Their gallantry was of so high an order, that tactical lessons drawn for future



guidance in such operations must be accepted warily. Morale is ever an uncertain factor. Tactics must not be built on uncertainties but on sound reasoning, based on a thorough appreciation of the characteristics of the weapons, by means of which victory is to be achieved. The frontal attack against strong opposition entails heavy casualties which at once re-act most unfavourably on morale. Tactics, to be successful, must aim at keeping morale high by keeping casualties low. From this point of view, again, the frontal attack is fundamentally unsound.

#### 12. *A Suggested Solution.*

It has already been said that the defender automatically resigns the initiative. The first object of the attacker must therefore be to prevent him regaining it. The defender must be tied down to his position and prevented, at all costs, from moving out of it. The machine gun is admirably suited to prevent movement. After reconnoitring the extent of the enemy position, the first step in offensive tactics must be to detail a proportion of machine guns to neutralise it. These guns would further form a screen covering the communications. They will require a small escort of riflemen for local protection and should be pushed forward as far as possible compatible with safety. The remainder of the force should then manoeuvre round a selected flank with the object of striking the enemy's rear and cutting his communications. This turning movement must be wide. In the case of small forces, it must be conducted at least out of sight of the defensive position and preferably beyond the range of field artillery. In the case of large forces, it may even be beyond the normal zone of tactical reconnaissance from the air. As the movement develops, further machine guns should be periodically dropped and pushed towards the enemy's flank with the object of tying it down and ultimately of neutralising the movement of hostile reserves. These guns by extending the screen would continue to secure the communications. The task of neutralisation may well be assisted by a portion of the artillery. With the majority of the defenders tied in their position, the final stroke of the attackers could not be heavily opposed, should easily obtain its object and would be absolutely decisive. The principle of offensive tactics must, therefore, be not to attack the enemy in his strength, but in his weakness, his communications. The mainstay of those tactics is fire power, the use of fire in its strongest, its defensive rôle, that is fire that stops, that stops movement,

that stops counter-attack. And this use of fire must be continued systematically until the attackers are astride the enemy's communications, where their position must again be secured by defensive fire power. This then is the correct use of fire to cover movement, not an annihilating fire under which the attackers move unscathed into the enemy's position, for in mobile warfare that is impossible, but a screen of fire behind which the attackers move unscathed against the enemy's very vitals.

### 13. *The Feasibility of Envelopment.*

It is often argued that envelopment is impracticable. On two occasions only is this the case. Firstly, when a definite defile, which cannot be outflanked, has to be forced, and, secondly, when the opposing forces stretch from frontier to frontier as on the Western front. In the first case it is agreed that probably the only successful method is to blast a way through with a heavy concentration of artillery. The second case entails a period of position warfare and, once static conditions set in, experience has shown that war becomes an economic rather than a military struggle and the side which is the more economically sound proves the victor. But here static conditions are not being considered but rather the period of moving warfare that precedes them, for it must be the aim of modern strategy to prevent the war becoming stabilised by securing an early decision in the initial mobile phase. The keynote of that early success is fire power and mobility.

### 14. *Mobility.*

In any outflanking operation the time factor is of the utmost importance. It has been shown that the enveloping movement is protected by a cordon of fire which neutralises the defensive position. The neutralising effect of this fire will be greatly diminished at night. In the case of a small force it is therefore necessary to complete the envelopment during the hours of daylight. With larger forces more time can safely be allowed but, in any case, an increase in mobility is absolutely essential.

### 15. *The Demand for more Machine Guns.*

The task of neutralization falls mainly on the infantry. Machine-guns can most effectively carry it out. The rôle of the infantryman proper, that is the rifleman, tends more and more to become that of local protection. At times he must act as a scout, at times as a skirmisher, at others as a policeman, ever protecting the machine-guns,

now the main infantry weapon. Neutralization is an extensive undertaking. To compete with it, infantry must be strong in fire power, stronger in fact than even the most up-to-date establishments admit. A further increase in machine-guns is, therefore, necessary. A battalion organization of two rifle and two machine-gun companies might meet the case or, perhaps, one rifle and two machine-gun companies with a proportion of riflemen on the strength of the latter for local protection. This alternative organization has the advantage of making the machine-gun sub-units independent, and is already being looked on favourably in Continental armies. Financially, additional machine-guns mean a considerable initial outlay, but in the case of Britain, which relies on a small professional army to secure a decision in the early stages of a war, the expense could probably be met. In the case of those Continental nations, which rely on man power in the form of large conscripted armies, the cost would be prohibitive. It would then remain for British arms to demonstrate again the superiority of fire power over numbers, even as they did at Waterloo. Should, however, an early decision not be gained, static conditions would ensue and Britain would then be forced to call up a national army. There would not be time to train them as machine-gunners nor could sufficient machine-guns be produced to arm them, but in static warfare the rifleman still plays the leading part. He it is who must bear the brunt of the prolonged war of attrition, until one side collapses from economic exhaustion or, perhaps, until a new and unexpected invention places an overwhelming superiority in the hands of the discoverers.

#### 16. *Conclusion.*

War is not an exact science. In any campaign the ever-varying quality of human nature is such an important factor that the most perfectly conceived plans must often fail to fructify. In discussing war, any syllogistic deduction must therefore be of doubtful value. If, on the other hand, equal conditions of morale can be premised, the following general conclusions may at least be accepted as rational:—

- (a) The defence is stronger than the attack.
- (b) The frontal attack cannot succeed.
- (c) The attack must be a combination of neutralization and envelopment.
- (d) Neutralization is the task of the infantry, envelopment of the mobile arm.
- (e) An increase of fire power is demanded for the former, an increase of mobility for the latter.

## THE SNAKE-STONE.

## A DAY WITH COBRA-HUNTERS.

By

COLONEL W. F. BLAKER, D.S.O. O.B.E., (LATE R.A.)

In the winter of 1903-4 I was marching with my battery ("D" R.H.A.) near Panipat in the Punjab. My Commanding Officer at the time was a keen sportsman as well as a kind and indulgent person, who frequently gave me a day's leave so that I might go off into the jungle instead of slogging along the hard high-road by the side of my section. My *modus operandi* on these "jungling days" was simple. I used to ride out of camp at dawn or thereabouts and, taking a couple of natives with me, I would make a wide detour and rejoin the battery at its next camping-ground when night fell. The country through which we passed was often quite unknown to me. As a rule little or no information of any value could be extracted from the inhabitants, and game was in many districts chiefly remarkable for its scarcity. It was therefore not surprising that my "bag" was frequently small and that at times I returned altogether empty-handed. Still, I used to enjoy hugging my rifle and waiting, after the manner of Mr. Micawber, for something to turn up. And if nothing turned up, well, it did not matter. I knew I had had a day in the country and that was quite good enough for me. Besides, even if I never saw so much as a single head of game to fire at, there was always the possibility of my seeing something of jungle life that was new to me. So I took my chances whenever they came, no matter how hopeless the prospects; and once, at any rate, I was amply rewarded for my pains.

On the day in question things seemed hardly more promising than usual. The evening before, a minor magnate from a village close by had come to my tent and offered me his services if I wanted to shoot. Of course he swore that game abounded and equally, of course, I did not believe one-tenth of what he said. This inevitable preliminary over, we got to business, made our terms, hatched our plot and agreed to start before daybreak next morning.

It was bitterly cold when my bearer, Sher Khan, came to call me; and for a moment or two, I felt I greatly preferred the company

of my little camp bed to that of the genteel poacher who, for a consideration, had condescended to place his invaluable services at my disposal. However, Sher Khan was inexorable, and after a few minutes my numbed fingers were struggling desperately with breeches buttons and leggings; a cup of hot tea was gradually warming my interior economy; whilst the dull thud of my pony's hoofs fell on my ear urging me to be quick and get a move on my patient, shivering mount whose coat was staring like a hedgehog's.

We were off well before the sun was up and for some miles travelled at a fast walk through fields and scattered villages. Near one of the latter we passed the camp of the "Collector Sahib," all wrapped in peaceful slumber. I feared we might disturb the great man's dreams if the pie-dogs gave tongue; but so intense was the cold that even the noisiest of the village curs thought it better to remain quietly in their miserable shelters than to come out for their usual yap at the passing stranger. So we moved on in silence and, but for the patter of my pony's feet and the shuffling of those of the natives behind me, not a sound broke the stillness of the morning air. We emerged from the last village just as the sun's rays topped the horizon and showed up clearly the fantastic forms of the dense smoke-clouds which hung in heavy belts above the native hovels. They were weird and strange to look upon these smoke-belts, as they swayed gently to and fro; but we quickly turned our backs on them and their nauseous, stifling smell and were glad to breathe the purer atmosphere of the jungle that lay before us. The country certainly looked promising and my hopes rose steadily, only to fall bit by bit as we scanned one likely spot after another without finding any game at all. Suddenly a magnificent black buck sprang up out of some high grass not eighty yards in front of me and went off with characteristic bounds. As bad luck would have it I was carrying my shot-gun at the moment and the coolie who held my rifle had, of course, dropped behind in spite of all my injunctions that he must stick to me like a leech. So I lost the buck as well as my temper, but resolved to shoulder the rifle myself for the rest of the day.

The sun was high in the heavens before we spied another good black buck. He was one of a herd that was lying down in the shade of some low trees on a piece of ground difficult to approach. My stalk failed and I was about to sit down and seek consolation in sandwiches when it occurred to me that it would be wise to withdraw the

cartridge I had left in the chamber of my rifle when resting it against a fallen tree. I pulled the bolt and out flew the case, but to my disgust the bullet remained firmly stuck in the barrel whence nothing that I could do would move it. This was most annoying. Here was I miles from the battery with at least six hours of daylight before me, with black buck in the neighbourhood and a useless rifle in my hands! However, things were not so bad as they seemed. My genteel poacher, who styled himself my "shikari" for the day, came to the rescue and put forward the one and only sound suggestion he had made since we started. He told me there was a village a mile or two out of our way where dwelt a *lohar* (native ironworker) who would doubtless be able to force out the bullet with an iron rod. The *lohar* was found in due course, a few vigorous blows applied to the end of a stiff wire removed the obstructing bullet, and I had nothing left to complain of but the loss of time occasioned by our detour through the *lohar's* village. About this I, of course, did the usual "grouse," little dreaming that the circuitous route we had been compelled to follow would lead me to a spot where I was to witness a sight rarely beheld by any white man even though his years in India were many.

We had put the village not more than a mile or so behind us when I noticed some grass huts of unusual design. I asked what they were and was told that they belonged to Kanjars, or gipsies, who spent their days catching snakes and lived on the flesh of wild animals, including jackal. I knew that the Kanjars, like the Sansis, were one of India's criminal tribes. The information given to me was therefore of interest, so I ordered a quarter-right-wheel and made towards the dwellings. As we approached the Kanjar women ran away; but the males came forward a few yards to meet us and then stood staring in sullen silence, evidently none too pleased about our intrusion. For some moments we stood facing each other without saying a word and I had time to take stock of the men before me. Physically they were magnificent specimens of humanity. None of them appeared to carry a pound of spare flesh anywhere, and amongst the adults there was not one under six feet in height. Their long lithe figures were but scantily covered with clothing, and under their shaggy black hair peered eyes that had the unmistakable look of the wild man in them.

At last I broke the ice by addressing a few words of Urdu to one of their number, but so hopelessly "jungly" was the abrupt reply I

received that I could not understand a syllable. Turning to my "shikari" for assistance, I told him to say that I did not wish to trouble my friends in any way, but merely desired to see their snakes if they had any they could show me. Judging by the tone, the answers given to my interpreter were as surly as the one vouchsafed to me, and it became evident that the sooner we made ourselves scarce the better would the Kanjars be pleased. Before we turned to go, however, I pulled out a handful of small coins and gave a few annas to one of the men who appeared rather less stand-offish than the rest; and in doing so I took good care to let the others see what my hand contained. Their attitude changed instantly. They smiled, became talkative and showed every sign of wishing to establish better relations. They consulted together for a few seconds and then offered to show me some snakes on condition that I remained where I was and did not approach any closer to their dwellings. To this I readily agreed, and a few moments later, half-a-dozen brown figures were bounding away towards another group of huts at a pace that would have done credit to a Zulu. After a few minutes they reappeared bearing a number of firmly closed spherical baskets which they arranged in a circle around the spot where I stood. At a given signal from one of the men the lids were thrown open whereupon out of each basket there appeared the ugly heads of three or four cobras. For a moment the reptiles appeared dazzled by the sun, then they slowly uncoiled their supple bodies and glided smoothly out of their prisons on to the ground. There they lay, or perhaps I should say sat, at least a score of them, writhing and hissing with expanded hoods, and heads swaying from side to side. They were, of course, perfectly harmless, as all had been fanged; but there is something peculiarly vindictive looking about a cobra roused to anger, and rarely have I seen any picture more perfectly illustrative of concentrated spite and hatred than was presented by the living ring now formed around me.

After watching the creatures for a while, I told the men to put them back into their baskets and offered a reward of eight annas for every cobra they could catch in my presence. My offer was accepted with alacrity, and I was soon striding rapidly across country with my strange acquaintances. We walked for a mile or so and then stopped in front of a low *akh* bush, under which was a hole which I could not, for the life of me, have recognised as the entrance of a snake's earth. I said it looked like an ordinary rat-hole, but the Kanjars assured me

that a couple of cobras lived there, and they forthwith proceeded to prove the correctness of their assertion.

While the rest withdrew a short distance, one of the men, who had provided himself with a *toomrie* (wooden wind-instrument) and had tucked under his left arm a steel rod with a crook at one end, took post in front of the hole and began the *jadu*, or magic, that was to entice the snakes from their retreat. The sound of the *toomrie* was not unlike that of the pipes used by certain Indian regiments, and it alternated, after every few bars, with a weird chant delivered in a clear high-pitched voice. As the man played and sang in turn, he kept up a quaint dance accompanied by gestures which became more or less ferocious as the strains of the music rose and fell. How long this performance lasted I cannot say. I was too deeply engrossed in what I saw to take much note of time; and I hardly knew whether to rivet my attention more closely on the hole in the ground or on the antics of the strange figure before me. My gaze was still travelling swiftly from one to the other, when suddenly the man darted forward and, with incredible rapidity, made a lunge at the hole. The bright steel rod shot straight to the ground like a flash of lightning and then swished to one side, carrying with it, in the crook, a huge male cobra hooked just behind the head.

The whole thing had happened so quickly that I simply could not believe my eyes. There was the cobra without a doubt, but it seemed that the man must have deceived me in some manner. I felt sure I must have been mesmerised and made to see that which could never have occurred in actual fact. So I feigned anger, told the man it was all *bandish aur saizish* (humbug and trickery) and swore he had had the snake concealed in his clothes. This he firmly and solemnly denied and to prove his honesty, he offered to take off all his clothes and to catch another cobra in the same way. He declared the female was there too and that, if I would but have patience, he would capture her as well.

Then he divested himself of his garments till not a rag remained but the smallest of loin-cloths and the *pagri* wound about his head; but, before he resumed his incantations, the male cobra had first to be secured. The brute, apparently realising its helplessness, had made no effort to escape. It simply sat there, enraged and baffled, hissing and writhing after the manner of its kind. As its captor approached, it raised itself higher and turned to face the crouching figure and the



long, lean hand and forearm extended towards it. Strange indeed was the similarity of shape between the body of the reptile and the limb of the man ; but stranger still was the similarity of movement when the two began their struggle for supremacy. As the snake advanced so did the hand withdraw, keeping always just out of reach. When the snake retired, the hand followed instantly, ready to seize the initiative the moment the enemy gave way. Like two armies in the field they sought to take each other in flank ; the snake apparently aiming at the wrist of the man, the man bent on seizing the neck of the snake just behind the head. The smoothness with which the two combatants moved was wonderful to behold. There was something uncanny about them too ; and so equally were they matched, that, to my unpractised eye it appeared as though neither would ever gain a decisive advantage. Yet the chances seemed to lie in favour of the cobra. It seemed incredible that any human hand, however skilled, could close upon that circling, swaying head and yet avoid the poison fangs. But the limb of the man was itself so snake-like in its poise and outline that there might have been two cobras, each striving to deliver the lightning stroke that would give the one the mastery over the other. The swell of the half-closed hand looked strangely like the inflated hood, while the wrist and forearm strongly resembled the portion of the cobra's body raised above the ground.

The other Kanjars and I had formed a ring close round the pair, and all had squatted low so that we might observe the better. No one spoke or stirred hand or foot, for they were as keenly interested as I was. Again I kept no count of time, and I was still gazing intently when the crisis came with a suddenness which defies description. Before I could realize what was happening the hand shot forward and with unerring aim, gripped the head and held it as though in a vice. Violently indeed did the body of the cobra curl, twist and wriggle, but all in vain. The venomous jaws were pressed tightly together between thumb and forefinger, whilst the palm of the hand closed firmly round the neck. The deed was done and a few minutes later the snake was safely stowed away in one of the spherical baskets held ready for its reception. I hoped I should see the animal fanged, but though the Kanjars briefly explained to me how they would set about it, they were evidently anxious to tackle the female before they did anything else. So I unfortunately gave way to them, with the result that I never saw a cobra fanged at all.

The details connected with the unearthing of the female were exactly the same as those I have already described, but on this occasion I checked the time. It was, unless my memory plays me false, just forty-five seconds from the first sounds of the *toomrie*. The actual capture was also to be effected as before, but the man was nearly destined to "eat defeat" in this second encounter. The female cobra, though rather smaller and weaker than the male, was equally full of fight and certainly quicker. Her sparring was wonderful. She kept her adversary at bay with consummate skill and resorted to the offensive more frequently than her spouse had done. Yet the Kanjar was not to be outwitted easily and for a while the game was well contested. At last the man believed his chance had come. He seized it; but ere his hand closed round the cobra's neck, she struck and plunged her fangs into a finger. It was well and smartly done, but just too late, for she could not withdraw: the hand came on despite its wound and held her tightly in an iron grip.

A low exclamation of surprise, half gasp, half murmur, broke from the other Kanjars when they saw the blow go home; and whilst the snake was being disposed of the murmur grew to a continuous chatter. It was quite evident that the victim's fellow-tribesmen were considerably perturbed, though it seemed hard to believe that the occurrence was a very unusual one. The injured man was immediately attended to, or rather, he at once began to attend to his wound himself. After squatting on his hunkers, he first took from a red cloth bag a piece of dried wood, or coarse root, with which he drew rings around his forearm. The wood was light in colour, though whether it had been prepared in any special manner I cannot say. It certainly left clearly visible grey lines, but these may have been no more than light scratches which would naturally show up on the dry, dark skin of a native. At all events, when I afterwards tried a bit of the root on my own wrist, no marks of any kind appeared. In answer to a question as to the object of the rings, I was told that the poison would not travel beyond them. And when I suggested that this must surely be a case of mere superstition, I was solemnly contradicted and presented with a piece of the root for my own use in case of need. I kept it for years, but I could never find anyone who could tell me anything more about its properties.

The next step in the Kanjar's cure consisted in his squeezing out of the wounded finger (the second of his right hand) as much blood as

he could. He twisted it, bent it, and massaged it until two drops appeared where the fangs had entered, one at each side of the first joint. Then he moistened with saliva the top of the finger between the punctures and placed on it a small, flat, circular object, black in colour and about the size and thickness of a half-penny. This was undoubtedly the so-called "absorbent stone," or "snake-stone," about which a certain amount has, from time to time, been written. I know little or nothing of its nature or properties and cannot even be certain that it was actually a "stone" in the proper sense of that word. In appearance it most strongly resembled a card-counter made of a small piece of black slate. But, whatever it was, I can testify that the "stone" I saw used stuck firmly to the flesh directly it was placed in position. The man moved his wounded hand about freely and repeatedly turned it over, back downwards, as he sat on the ground moaning and rocking himself to and fro in evident pain. All the while the stone remained where it was till some twenty minutes had elapsed, when it dropped off of its own accord.

The falling of the stone was the signal for the immediate break-up of the group of spectators. All the Kanjars now appeared quite happy. They gathered up their traps, and snake baskets, and strolled cheerfully back to camp. I went back with them and remained in their company for an hour or more; but no further thought was given to the principal incident of the day, nor did the cobra's victim appear to be any the worse for his injury. My chief desire, naturally enough, was to secure the stone; but the Kanjars flatly refused to part with it in any circumstances. I offered them every anna I had on me, some fifteen rupees all told, a small fortune for a wandering gipsy tribe. I would have given them ten times as much if I could have persuaded them to send a man back to camp with me for the money, but my efforts were of no avail. The Kanjars remained adamant, and I was told afterwards that religious superstition most likely had a good deal to do with their obduracy. They probably feared that evil would befall them if they parted with their stone, or that they would get into trouble with the rest of their kind if it were found that they had sold their secret to a *sahib* for money.

Thus ended one of the strangest and most interesting experiences I have ever met with in the jungle. It is not my purpose to enter into the merits of the case, or to discuss the many theories that might be put forward. I have merely set down the facts as I saw them with my

own eyes and as I recorded them in writing shortly after the event. There can be no doubt that the man was bitten by the cobra, that both he and his friends were considerably perturbed in consequence, that he cured himself in the manner described and that, beyond forcing as much blood as possible out of the punctures made by the two fangs, neither he nor his friends resorted to any orthodox method of treatment—not even a ligature of any sort was applied. The idea of any kind of fraud may, in my opinion, also be excluded. It might of course be argued that, whilst my companions and I were walking the mile or more from the grass huts to the snake-hole, there was nothing to prevent the Kanjars sending one of their number on ahead with instructions to put a couple of tame, fanged cobras into the hole in question. But in the first place the particular bit of country we walked over was what is known as “*dahk* jungle” and so open that it would have been difficult even for a good runner to reach the hole before us without being seen. In the second place it would have been quite impossible to get the snakes into the hole without disturbing the surface of the ground around it. This consisted of smooth dust and equally smooth fine white sand which showed no trace whatever of having been touched by any human hand or foot. I am therefore convinced that the two cobras caught were wild and unfanged, and that no fraud of any kind was perpetrated.

The shadows were lengthening when I said farewell to my strange companions, and I greatly regretted my inability to accept their pressing invitation to join them in a jackal-hunt which was to take place after dark. I had a good many miles to ride back to camp, and I did not quite know what my Major would say if, in the heart of the jungle and without permission, I spent a night out. The Kanjars’ method of jackal hunting, by the way, is simple. It appears that they merely go off into the bush and there squat down in hiding with their dogs beside them. Next they begin to caterwaul and to imitate the jackal’s eerie, mournful cry until they entice him to close quarters. The dogs are then suddenly loosed, “jack” is collared and served up for dinner in due course.

Their method of stealing dogs is equally effective, though how it is worked I cannot say. I can only repeat a story told me by a friend of mine, who, for a time, commanded the Government Remount Depot at Karnal and to whom I had related my experience of the snake-stone. He told me that on one occasion a British infantry regiment was in camp

at Karnal for the night, and so, as was his custom when troops passed through, he asked a number of the officers to dine with him. In the course of the evening the conversation somehow drifted on to the subject of dogs in general and watch-dogs in particular. The guests were full of praise for the animals they owned. One had a bulldog that would not let a native come within a hundred yards of his tent ; another possessed an Irish terrier, the best watch-dog ever born ; a third owned some other breed equally ferocious, and so on. So the talk went on whilst my friend sat and listened in silence, knowing full well that a Kanjar camp was pitched within a short mile of the dinner table. When all had had their say, he had his, and he bet them a case of champagne that, if they would allow him to put their guardians to a practical test, he would guarantee that there would not be a single officer's dog left in camp next morning. At first my friend's offer was looked upon as a joke ; but when he declared he was serious and added that the dogs might be secured in any way their owners pleased, the bet was taken. The guests, on their return to camp, fastened up their canine companions in every sort and kind of manner. One was chained to a tent pole, another to his owner's bed, a third to a metal wash-hand stand which he would bring down with a clatter if interfered with in any way ; and so on and so forth.

Meanwhile my friend had sent for the Kanjar headman and put him up to the game. He told him of the bet, assured him that he would square the police in case of trouble, and persuaded the old man that it was up to his own honour as well as to that of his tribe to see to it that the bet was won. The old man departed and the night passed without a sound ; but when the officers were roused at dawn there was not a single one of their dogs to be seen. None of the dogs belonging to N. C. O.'s and men were missing, but every officer's dog had vanished. It was not till the second mile-stone on the Delhi road was reached that a diminutive Kanjar urchin checked the onward march of the battalion by blocking the way with a dozen dogs ignominiously attached to bits of string looped round his fingers.

## COLLECTIVE TRAINING IN A BATTALION—A CRITICISM.

By

“BEKNUT.”

I feel compelled to join issue, on one important point, with the author of that excellent article—“Collective Training in a Battalion”—published in the April number of the Journal of the United Service Institution of India.

“An Infantry Soldier” states, very rightly, that, in India, two forms of warfare have to be taught, *viz.*, open warfare and mountain warfare; equally true is it that troops unaccustomed to, and untrained for, warfare in mountainous country are at a great disadvantage until they have learnt the “tricks of the trade.” Indeed the great majority of “regrettable incidents” that have so often occurred on the North West Frontier can be traced directly to the lack of such training, *i.e.*, faulty tactics involving wrong use of ground, which differs widely at times from that holding good in open warfare.

In the programmes of work suggested by “An Infantry Soldier” both for platoon, company and battalion collective training, we find mountain warfare mixed up with open warfare. This may be sound in the British Army, but it is not so in the Indian Army.

To take the suggested battalion training programme; here we find that the work on the first three days deals with different phases of the “attack” and the “withdrawal” in open warfare.

Let us suppose that during the discussion on the day’s work, which was carried out on the ground, as suggested, one platoon was criticised severely for not having taken advantage of a possible covered line of approach leading up to the enemy’s position, the use of which would have avoided crossing some open ground swept by machine-gun fire, thereby saving many unnecessary casualties.

Let us imagine that this lesson was driven well home, and that two days later during an “attack” in mountain warfare, the same platoon, remembering the company commander’s somewhat vigorous language on the use of covered lines of approach, on this occasion complying faithfully, worked up a deep *nullah* which led towards the “savage enemy’s” position, and got scuppered for its pains. Then follows a second scathing criticism at the “pow wow.”

What is the result ? Jack Sepoy scratches his head and thinks :—  
 “The other day I was wrong in not using a *nullah* ; to-day I was wrong in using it. Perhaps the ‘ Keptan Sahib Bahadur ’ is feeling unwell this morning ;” and—he gives up the problem.

Some may argue that this is exaggerated, but it is only one of several similar incidents drawn from life. It has happened, and will happen again ; so much are the minor tactics of open and frontier warfare at variance. In the above example one’s sympathy is, or should be, with that platoon commander and his men ; the average Indian N. C. O. or sepoy is incapable of switching off his mind from one form of warfare to the other at a moment’s notice. It must be remembered that it is the *average* individual we have to cater for in training, and it has been experienced on more than one occasion that to try and make him assimilate the two forms of warfare during one and the same training can only result in “mental indigestion.”

Only one example has been quoted, but there are numerous other possible situations in which the tactics suitable for open warfare would be death traps on the North-West Frontier.

It is a maxim of training that the lessons to be taught in any one tactical exercise with or without troops should be few and simple, so that the poorest intellect shall benefit. There can be little doubt, therefore, that the same principle must hold good for the collective training of any one year. What hope can there be for anything but disgust, boredom and loss of interest if the lessons of one day are entirely contradictory to those of the next ? The question, too, must be asked as to what the man in the ranks understands about it ? If he thinks at all, he is probably convinced in his own mind that, if a certain formation for a certain bit of ground was correct yesterday, it must be correct for to-morrow irrespective of what particular warfare is being staged at the moment. This point cannot be waved aside lightly.

It is quite possible that my strictures may not hold good for a British Regiment, where the standard of education and intelligence must be higher ; even so, it has come within my experience that well-trained British Officers have found considerable difficulty in switching off their minds from mountain warfare work on to open warfare, and there can be little doubt that a long spell of hill warfare does make it difficult to think suddenly in terms of open warfare. If that is so, pity the poor sepoy !

It may be asked how one is to fill in usefully twelve days in a battalion training camp if one concentrates on one form of warfare only. Surely the answer is a simple one. An eye for country and the correct tactical use of ground cannot be learnt in a day ; there cannot be too much of it. There can be few better methods of teaching and acquiring both than the " attack ;" as one may not try to teach too many lessons in one day, it is suggested that five days out of twelve devoted to the attack will be found all insufficient to inculcate the many minor points which go towards turning a battalion into a perfect fighting unit.

Given fresh ground to work over, this form of fighting against a " flag enemy " can never grow stale, full as it is of quick ever-changing situations ; the skilled use of ground and the trained application of fire under the direct orders of the junior commanders, the cohesion and co-operation between the various infantry weapons so necessary to defeat an enemy ; can one have enough of this ? We wish to imbue the troops with the offensive spirit ; we wish to imbue the subordinate leaders with self-confidence and initiative ; we wish them to learn to introduce guile and cunning into their plan of attack, into their methods of advance ; we wish them to learn to manœuvre their commands over ground under fire with the minimum loss to themselves and the maximum surprise to the enemy ; we wish to teach them a hundred and one other points to make certain of the issue even when their leaders are casualties. Can this be better accomplished than by staging attack after attack during collective training, and how then can one find time for mixing the two forms of warfare during one training camp ?

It is here that the training programmes suggested by " An Infantry Soldier " fall short of the ideal. The two subjects of open and mountain warfare combined are so colossal and so at variance with each other that full justice in one and the same training can be done to neither. It is therefore suggested that great care should be taken not to mix the two forms of warfare in any one training season ; that the training of any one year should be limited to one form only ; and that where it is necessary to teach both mountain and open warfare, this should be done by devoting alternate years to each.

If the above principle were recognised and carried out universally, it would go far towards helping " Jack Sepoy " to keep his mind clear of the fog which at present threatens to obliterate his thinking powers.



## THE BABES IN THE WOOD.

By

"YOUNG OFFICER" AND "FAILED PROMOTION."

*Scene I.—"S. O. S."*

*A Young Officer, musing to himself over a copy of the Journal of the United Service Institution of India for July 1930.*

YOUNG OFFICER (*soliloquizing*): I wish I wasn't quite so puzzled about these Principles of War. During the last year I've read a whole series of articles about them, as well as more than one book. Now, just as I was fondly imagining I was beginning to see light (what a hope!) along comes "Failed Promotion"—who I feel sure from his name must really be a kindred spirit—and demolishes one of the foundations of my castle in the air.\* I'm in serious danger of becoming tied up again. Not that I don't understand his article, which is delightfully clear after some of the abstruse treatises I've been wading through, but he's swept away one of the rocks on which I was going to build all my victories, once I got hold of that baton which they say is somewhere inside one's haversack.

Now what's worrying me is this. After a good deal of reading and thinking—though the Major wouldn't call it that—I've come to the conclusion that, in order that any force, army, division or battalion, may carry out its job, it must be safe from disturbances in other directions. In other words, without security it will often be pure luck whether an operation is successfully carried out or not. A corps ordered to reinforce an army has got to get there and must take every care to prevent the enemy interfering. A division ordered to attack a position, as at Second Gaza, should be protected from attack in front or rear by the enemy from another position. Now "Failed Promotion" does not deny this, but he says that the only object of security is to secure freedom of movement. Here is worry number one.

Suppose a force is advancing along a road, expecting to meet the enemy during the day. In front of it will be an advanced guard. Now, is the sole job of that advanced guard to enable the force to move

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\* "And then there were Seven," by "Failed Promotion," U. S. I. Journal—India—July 1930.

along the road ? It could still move forward without the advanced guard in front of it. Of course one of the advanced guard's jobs is to clear away minor opposition, but, in any scheme I've ever been on, it's been very quickly held up by resistance that it cannot overcome alone. So the force has to stop now despite its advanced guard. Now wasn't the real object of that advanced guard to prevent the main body suddenly walking slap into the enemy ? To protect it from surprise, and if necessary to reconnoitre for it ?

The last phase of many a tactical scheme depicts the commander halting for the night, and the question which follows is, "Where would you put your outposts ?" Is not the object of posting these outposts to enable the main body to *rest* in peace ? If and when the alarm is given, they, of course, give the main body time to *move* to its battle positions, but surely the idea of outposts is to give security at rest ? With these thoughts rankling, *can* I drop security from my list of principles ?

Connected with all this comes worry number two, for "Failed Promotion" says that a hitherto unmentioned principle, which actually should be at the top of the list, is Information. Now I've just finished reading a book by a celebrated man,\* in which a great deal of space is devoted to security, and in which one of his main doctrines is that part of the business of what he calls the Security Service is the provision of information. I've been learning that information is a vital part of security, and that one's security troops must be far enough away to enable their information to be acted upon before the enemy can interfere. I can remember one phrase in particular: "An advanced guard ; able to inform ; able to protect."

Am I to scrap Security, and substitute instead Information and Freedom of Movement ? I can't help thinking that if I did so I might forget that nearly all operations have to be protected, and that my "eyes" must be able to resist as well as to see.

I know what I'll do. I'll send this up to the "Journal." If they think my difficulties frivolous they won't print it, and if they do print it perhaps someone (possibly "Failed Promotion" himself) realizing I'm not trying to criticize but only to learn, may be kind enough to lend a hand.

*(Exit "Young Officer" registering some degree of mental confusion.)*

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\* Marshal Foch. "The Principles of War."

*Scene II.—“The Dark Forest.”*

*Two, small, rather forlorn figures are seen, standing in the depths of a dim wood. One is “Young Officer ;” the other “Failed Promotion.”*

“**FAILED PROMOTION**” (*putting a bold face on it*): As I have already confessed, I seem, whenever I write anything, especially in examinations, to have the disastrous knack of differing from Senior Officers—though I never bargained on having Marshal Foch added to their number. This makes it all the more distressing when I find that you, “Young Officer,” too, are at variance with me. However, I don’t believe we are really as far apart as you think, and if one babe, rather lost himself in this confusing wood of principles, can help another to find the path, take my hand.

You don’t like my saying that the whole object of Security is to give freedom of movement. You instance an advanced guard, whose real object, you suggest, is “to prevent the main body suddenly walking slap into the enemy.” That, of course, is one of the things the advanced guard has got to do, because if we do walk slap into the enemy we have lost our freedom of movement. But the first duty of the advanced guard is, as you will agree, to enable the main body to move without interruption in the direction in which it wants to go ; if opposition is too strong for the advanced guard to overcome, it then has to pin down the enemy, so that the main body can develop its attack in any direction it likes. Thus, whatever happens, the advanced guard’s essential task is the same—to secure freedom of movement for its main body. Similarly, outposts, while incidentally preventing the main body’s rest from being disturbed, have as their real object the gaining of time in the event of a serious attack, so that the main body may move to its chosen position. Like all other protective detachments, outposts exist to secure this freedom of movement that all the trouble is about.

In fact what it all boils down to is, that if a force has freedom of movement it is secure. So if, when you do grasp your baton at last, you arrange your groups of armies to keep their freedom of movement, you will find that your dispositions have automatically ensured security. As the greater contains the less, why make a separate principle of security ?

Your second worry—that information is not a principle of war, because, as Marshal Foch says in his great book (so abominably translated by Hilaire Belloc) its provision is part of the business of the Security Service—is based on a misapprehension. It is undoubtedly a primary duty of protective detachments to collect information, but it is a duty that applies equally to every other part of an army. It usually happens that the protective troops, being the closest to the enemy, have the greatest opportunities of obtaining information, and their information is often of the kind particularly useful to ensure security, but this is only one aspect of the question. The most valuable information, especially in a strategic sense, is generally obtained, not by the protective detachments, but by what might be called the “Information or Intelligence Service”—air reconnaissance, independent mobile troops, censorship and agents. Information is as you say “a vital part of security” but it is an equally vital part of every other phase of war. It is needed not only for security, but for offensive action, movement, surprise, co-operation and for the selection of an objective. It is obviously of much wider import than mere security, and, being the basis on which all action in war is founded, is undoubtedly worthy of ranking as a principle, and as the first principle.

Do you see a glimmer of light at the end of this path, fellow babe ?  
I think I do.

“YOUNG OFFICER” (*Peering ahead*): I’m blest if I do !

(*The gloom deepens ; the scene fades out.*)

*Note by the Editor.*

Although “Failed Promotion” has made out an interesting and in some ways convincing case for his list of principles we think that “Young Officer” is more likely to wield that baton of his some day if he retains Security as a separate principle.

## MILITARY NOTES.

BELGIUM.

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*Linguistic Law.*

Instructions have now been issued by the Minister of National Defence for the application of the linguistic law in the army.

Instruction will be given entirely in the official language of the unit concerned. Commands within the company, squadron, battery, &c., will be given in the official language of the unit. In larger units, *e.g.*, the battalion, commands will be given in French. French will be used in all official communications between officers of the active army. Flemish will be used in all official communications with subaltern officers of the reserve who have received their instruction in this language, unless they express a wish to use French.

It is noteworthy that there will be three German speaking units in the Belgian Army, a company of infantry at Eupen, a transport company at Elsenborn, and one battery of the 3rd Regiment of Artillery.

*Uniform.*

By Royal Decree a new full dress uniform has been approved for the officers of the Belgian Army.

The uniform will be dark blue, with various coloured and gold ornaments. A blue forage cap will be worn.

*New air port at Liege.*

A new air port is being constructed at Ans, the Liège aerodrome. The new port will be smaller than that at Deurne but the plans are by the same architect, Mr. S. Zasinski.

*Equipment.*

All obsolete machine-guns have been withdrawn from infantry units and these are now fully equipped with the latest pattern machine-guns and their accessories. Their mobilization equipment is also complete in this respect. The machine-gun equipment of two-thirds of the reserve divisions will also be completed this year and the remaining third in 1931.

*Artillery.*

The design and manufacture of a long range 120-mm. gun for corps artillery groups are receiving attention. A trial equipment will be completed in March 1931. The corps artillery is at present equipped not only with the guns which are to be replaced, but also with 155-mm. howitzers.

New large calibre ordnance will be completed in 1931 and will be added to the army artillery, which already consists of heavy guns, howitzers and mortars.

*Machine-gun Battalions.*

By an amendment to the *Règlement sur les Attributions des Autorités Militaires*, the machine-gun battalions and infantry batteries in a division have ceased to be under the orders of the Commander of the divisional infantry, and have been placed under the orders of the commanders of their respective infantry regiments. The General Staff states that this is not a mere amendment, but a change of policy.

*Commander of Divisional Infantry.*

The Commander of the divisional infantry has recently been deprived of his staff, and has therefore ceased to be an echelon in the chain of command, being turned into an assistant of the divisional commander. This is equivalent to a step away from the French organization in the direction of the British.

## BULGARIA.

*Military School, Sofia.*

This school trains officers for all arms of the Service.

The staff is composed of officers from the different arms, each company being commanded by a lieutenant-colonel and each platoon by a major or captain. Non-commissioned officers are not employed as instructors.

The course lasts three years, the first year being taken up by general military instruction. In the second and third years the cadets specialize according to the different arms of the Service to which they are to be posted. Under the present system cadets who show skill in mathematics go to the artillery or engineers, priority of choice being given to those who obtain the greatest number of marks on their first year's work.

The cadets are generally of very good physique and above the average in height. They seem to be self-reliant and keen on their work. The inculcation of patriotism, discipline and other military virtues receives considerable attention, and the passages and rooms are hung with battle pictures showing scenes from the country's history, and with portraits of national heroes. In the dormitories are numbers of texts extolling the different military qualities.

The instruction is given up almost entirely to military subjects and is mostly practical. Generally speaking, indoor work is carried out in the morning, consisting chiefly of topography, tactics and model bridge building. The French and German languages are also taught. Practical instruction includes ceremonial drill, musketry, weapon training and machine-gun drill and, for cadets of the appropriate arms, gun drill, horsemanship and survey.

The school itself is located in one of the finest buildings in Sofia, the class rooms are large, the dormitories are bright and airy and are kept very clean and tidy. There are two libraries and a museum. Generally speaking, this may be considered as a very efficient institution well calculated to maintain Bulgaria's military traditions.

### CHILE.

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#### *Army Budget for 1930.*

The military estimates for 1930, as approved by Congress, compared with those for the two preceding years, are as follows, in approximate sterling equivalents :—

1930	1929	1928
£3,031,000	£2,818,000	£2,154,000

In addition, the sum of £460,000 has this year been approved as a special vote for barrack construction, which has hitherto been included in the budget for public works. New construction is necessary at Iquique and Antofagasta for the troops who have been withdrawn from Tacna on its transfer to Peru, and advantage has been taken of this situation by asking for a considerable sum of money to improve existing military buildings.

Excluding this special vote, the budget shows an increase of about 7½ per cent. over that for 1929, which is mainly accounted for by large increases in the pay of non-commissioned officers and men

serving on voluntary engagements, and to a less extent by appropriations made for improving the equipment of the army. There is also an increase in the allotment to the aviation service.

*Recruitment of the Army.*

An interesting innovation has been introduced this year by the reduction of the period of compulsory service from twelve months to nine. Various factors have contributed to this decision, of which the principal are the shortage of agricultural labour in the country and the necessity for economy.

Under the new arrangement, recruits will join up in April and be released in December. During the first three months of the year there will be no private soldiers in the army except specialists and employed men serving under voluntary engagements, and certain selected men of good educational qualifications who are serving a reduced term of conscript service with a view to their appointment to reserve commissions.

Owing to the impossibility of training specialists for the technical arms in a period of nine months, units in those arms will, in future, contain a larger proportion of men serving on voluntary engagements.

*Strength of the Army.*

The strength of the army during 1930 will be approximately 26,000. This denotes an increase of nearly 2,000 men, which has been made possible by the reduction in the period of conscript service.

FRANCE.

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*Training Camps for the Army.*

The Senate rapport on the 1930 French Military Budget gives some interesting information regarding training camps for the army.

1. The army programme of instruction comprises, *inter alia*—
  - (a) A period of 40 days for all active troops in camp yearly ;  
75 days for Alpine troops.
  - (b) Combined training with air formations for certain elements.
  - (c) Divisional and other exercises, anti-aircraft training, combined training with the navy and manœuvres.



This instruction is to be given in 27 camps (12 large and 15 small) as far as France is concerned.

2. Each camp must contain 4 or 5 infantry ranges, 3 or 4 artillery ranges.

Each must have a minimum area of 15,000 acres, and be suitable for containing 7,000 to 10,000 men under permanent buildings.

The smaller camps require a minimum area of 7,500 acres, to lodge 3,000 men, and to take in together one infantry regiment, one group artillery, one company tanks.

Five divisional camps are also foreseen for Algeria.

3. The first echelon of work, to be completed by 1932, will cost 300 million francs and lodge 85,000 men; this is needed for the annual reserve training of the 350,000 men required by the Law of Recruiting.

146 million francs of credit has allowed for the construction of accommodation for some 25,000 all ranks and the general structure of the camps and their necessary installations.

140 millions will be needed in 1931, and 1932, to complete this echelon of work.

The second echelon, which will be spread over the years 1933—1940, will cost some 700 millions.

#### *Amalgamation of Infantry and Tank Schools.*

By a Decree of 4th March, the Infantry School and the Tank School will be combined under one Commandant.

As from 4th April, the combined schools will be designated as: *Ecole d'Application de l'Infanterie et des Chars de Combat*, and placed under a general officer as Commandant. In principle it will be divided into two sections; one infantry section and one tank section, each under a colonel.

The present policy is to treat tank units in all respects as part of the infantry and the amalgamation of these two schools is a further step in this direction. As far as can be ascertained, there is at present no question of moving the schools from Versailles.

#### *Army Manœuvres.*

1. Manœuvres on a larger scale than those held for several years are to be carried out in Lorraine in September, under the direction of

General Brécard, Military Governor of Strasburg. They will take place between the Meurthe and the Sarre, and the following troops will be included, strengthened by reservists :—

Corps Headquarters	..7th and 20th Regions.
Infantry Divisions	..11th (Nancy). 14th (Mulhouse). 43rd (Strasburg). 2nd North African (Toul).
Cavalry Divisions	..3rd (Lunéville). 5th (Lyon).
Army Troops	..Aviation units. Heavy artillery. Tanks and Engineer units.

2. An inter-divisional exercise will be carried out in the 6th Region (Metz), probably at the end of August, to study the air defence of the territory. This will be directed by General Lacapelle, Military Governor of Metz.

#### *Restoration of the "Kepi."*

The *képi* has been re-established for general wear in the army in peace time; it will be identical in shape for all arms and ranks. Ranks will be distinguished by the nature of the material, chinstrap and peak; arms by the colour, which will be that of pre-war days for all professional soldiers. For all non-commissioned officers and men of the annual contingent it will be blue for troops clothed in blue, khaki for those in khaki. Troops of the annual contingent now wearing the *béret* or *chéchia* will continue to do so, but professional soldiers of such units will receive the *képi*.

The *bonnet de police* is retained for use on manœuvres and at daily work.

#### *Adoption of New Recruiting Laws.*

1. A Presidential Decree of 20th June 1930, confirms the official adoption of the most important principles of the one year's service law for the army annual contingent, as regards length of service with the colours and in the reserve. The first contingent to be affected is the class incorporated in October 1929, which will therefore complete its colour service in October 1930, and subsequently according to the actual dates of enlistment.

2. According to the *rapport* preceding this decree the number of professional non-commissioned officers and men, *i.e.*, *de carrière*, which has been laid down as the minimum necessary prior to the implementation of this new law, will be reached by that date. It should be noted in this connection that after October any man with a day over one year's service comes into the category of *carrière*, a fact which somewhat diminishes the potential military value of a considerable proportion of those serving under this appellation.

3. At the same time the incorporation of the annual contingent will occur at the age of 21 instead of 20. This is the other change essential to the official adoption of the new service law.

*Age Limit for the Retirement of Officers.*

1. A *proposition de loi* has recently been laid, increasing the age limit for retirement of officers. The accompanying table shows the ages of retirement in 1914, to-day, and in future if this measure is adopted.

2. The reasons given for the necessity of the new law are :—

- (a) Officers should not have to retire earlier than civil functionaries. These latter do not retire till 55.
- (b) With only one year between the retiring age of lieutenant-colonels, colonels, and generals of brigade, it is claimed that many highly qualified officers miss promotion altogether, and many others have to retire very shortly after promotion ; this means that higher commanders are replaced too frequently for efficiency.

	1914.	To-day.	New proposals.
2nd-lieutenants .. ..	51	51	55
Lieutenants .. ..	52	52	55
Captains .. ..	53	53	55
Majors .. ..	56	56	57
Lieut.-Colonels .. ..	58	58	59
Colonels .. ..	60	59	61
Generals of Brigade .. ..	62	60	63
Generals of Division .. ..	65	62	65
Maintained without limit .. ..	70	..	..
Regional Commanders .. ..	..	..	66
Members of <i>Conseil Supérieur</i> .. ..	..	65	67
Vice-President of <i>Conseil Supérieur</i> .. ..	..	..	68

## FRENCH NORTH AFRICA.

*Security of Communications.*

The following notes are extracted from the Senate Finance Commission Rapport on the organization of security of communications in the Southern Territories of Algeria, Tunisia and the Sahara.

1. The only routes needing protection are :—

(a) Colomb-Béchar—Beni—Abbès—Adrar—Tessalit.

(b) Médénine—Fort Saint—Fort Polignac—Djanet.

(a) Lies in the Aïn-Sefra territory, and movement takes place by protected convoys, consisting of the *makhzen* of Colomb-Béchar, 2 sections of armoured cars (White and Panhard), and partisans of the Saoura. Further protection is afforded by the Saharan company of Bou-Denib on the Hammada du Guir, and to the south on the Rio de Oro frontier by the Saoura and Touat Saharan companies.

(b) Protection is assured by the S. Tunisian *makhzen* in Tunisia, and in Algeria by the El Oued mobile group, and the Saharan company of the Ajjer.

2. Until early in 1929, all M. T. vehicles used in the Sahara were for transport purposes only. Owing to incidents at the end of 1928, 8 armoured cars were sent over, *viz.* : 4 Whites and 4 16-h. p. Renaults. The armoured car detachment at Colomb-Béchar will now be replaced by a motorized squadron of the Foreign Legion : vehicle 16-h. p. Berliet with four driving wheels, 10 of these vehicles will be completely armoured and used as armoured cars, and 6 will be used for reconnaissance or transport of personnel.

Each of the groups of Saharan companies at Colomb-Béchar and Ouargla has also an M. T. section of a mixed nature (mostly experimental matériel), but new vehicles are on order : Citroen 15-h. p. and Laffly lorries specially constructed for local work.

In Tunisia there is a squadron of armoured cars consisting of 5 White and 6 Renault cars as used in France.

3. As regards transmission matériel, all Saharan posts have a long wave wireless installation. The Saharan companies also possess two vehicles and six camel transport short wave posts.

4. The Senate Finance Commission criticizes the poor arrangements hitherto made as regards the provision of suitable and sufficient vehicles in these areas. It approves of the new organization by which the Aïn-Sefra military territory now comprises all the area in Southern Algeria and Morocco subject to raids, with headquarters at Bou-Denib. The commission very rightly insists that whether the troops concerned are under Algerian or Moroccan administration (as opposed to command), they must be treated exactly alike as regards pay, allowances, leave, &c., which has not been the case hitherto.

#### GERMANY.

##### *Collective Training, 1930.*

The *Reichswehr* manœuvres will take place from 15th to 19th September on the borders of Thuringia and Bavaria near Meiningen, under the direction of General Heye, Chief of the Army Directorate, and will conclude with a review before President Hindenburg. The formations taking part will be Headquarters of 1st and 2nd Group Commands, 5th Infantry Division and 3rd Cavalry Division with attached troops, and in addition all other divisions will be represented in skeleton. The area consists of undulating and fairly wooded country. The manœuvres are specially intended to test command and leadership in the higher formations, staff work, and the system of communication and liaison, in which respects they will be on a larger scale than has been attempted since the war. The cost allowed for in the Budget estimates is £190,000.

Except for the above manœuvres, training will probably be confined to regimental training, but there is to be a special wireless exercise in the 1st Group Command.

#### GREECE.

##### *National Defence.*

For several years past Greece has pursued a policy of cultivating friendly relations with her neighbours, and economizing on national defence. Last year it became evident that this economy was beginning to cause uneasiness amongst those responsible for the efficiency of the fighting forces, and the resignation last summer of General Manettas, the Under-Secretary of State for War, was generally regarded as a protest against the Government policy.

Recently matters have been brought to a head by the publication in January of an article in a Greek weekly journal by General

A. Mazarakis, Chief of the General Staff, complaining that the army had not been supplied for several years with the material necessary to its efficiency. Whether or not the publication of this article was approved by the Minister for War is doubtful, and there was apparently some misunderstanding between him and the Chief of the General Staff on the subject.

The question was then raised in Parliament and a debate ensued in the course of which the Premier, M. Venizelos, replied in detail to some of the criticisms in General Mazarakis' article. He declared his conviction that though peace was assured for 10 years, nevertheless he could not admit that for that reason Greece should cease to maintain her army. The League of Nations based its strength on the forces of the States of which it was composed and Greece, said M. Venizelos, would contribute to the peace of the world by maintaining an army adequate to her responsibilities in the family of nations.

#### PERSIA.

##### *Trans-Persian Railway.*

On 24th February 1927, the Majlis passed a law authorizing the Government to construct a railway from Bandar-i-Shah on the Caspian Sea, to Bandar-i-Shahpur on the Persian Gulf, *via* Tehran and Hamadan. Construction works was to be started simultaneously from each end, and the initial estimate of cost was about £15 million, to be spread over a period of 12 years.

On 19th April 1928, a Railway Survey Bill was passed authorizing the Government to contract with a German-American Consortium for the survey and construction of 150 kilometres of line at each end. The German group was to work from the north, and the American (Ulen & Co.) from the south.

Work was started in the south in February 1929, and at a later date in the north, owing to weather conditions. By February 1930, the line from Bandar-i-Shah to Aliabad, a distance of 62 miles, was finished, except for a small section near Aliabad and final work on the bridge over the Tajan river. In the south the line from Bandar-i-Shahpur to Dizful, a distance of 156 miles, was also completed. The gauge of this railway is normal, and thus does not conform to either the Russian or Iraq gauge.

Owing to floods, however, washouts on a large scale occurred in several places on the southern section, and the Persian Govern-

ment endeavoured to force the Syndicate to repair the line before they would take it over. Negotiations were entered into between the Consortium and the Persian Government, but as no agreement could be reached, the contract between the two parties was cancelled with effect from 13th May. From this date the lines were taken over by the Persian Government.

The Railway Consortium has now been dissolved, and the two Syndicates have come to an agreement by which either is free to enter into a new contract with the Persian Government, but not to trespass on the other's area without mutual consent. It is understood that the American group in the south will not attempt to obtain a further contract in Persia, but that the Germans will continue in charge of the northern section.

No information is at present available as to the future policy of the Persian Government regarding the completion of the line across Persia.

#### UNITED STATES OF AMERICA.

##### *War Department Appropriations Bill for the fiscal year 1st July 1930 to 30th June 1931.*

After having passed the House of Representatives on 14th January, the War Department Appropriation Bill for 1930-31 was passed to the Senate whence it emerged on 25th April with a slight increase over the House figures. The alterations recommended were of little importance except that the sum of \$239,855 (£50,000) which had been inserted by the House Appropriations Committee for the establishment of a mechanized force, was cut out. As a result, however, of a meeting of conferees of the Senate and House a compromise was arrived at and this amount of £50,000 was restored. The final figures for 1930-31 are as follows:—

Recommended by Committee on Appropriations .. ..			
		..	\$454,231,386
Recommended by the House .. ..			
		..	\$456,243,386
Recommended by the Senate .. ..			
		..	\$456,695,864
Final figures .. ..			
		..	\$456,544,151
			(£95,000,000)
Appropriations, 1929-30, were .. ..			
		..	\$453,789,362
			(£94,000,000)

The Bill now only awaits the signature of the President.

## TURKEY.

*Turco-Greek Agreement.*

An event of importance to the maintenance of peace in Eastern Europe occurred on 10th June 1930, when the main outstanding question between Greece and Turkey was liquidated by the signing of an agreement on the subject of the exchange of populations.

By the Treaty of Lausanne, two communities, *viz.*, the Greeks of Constantinople and the Turks of Western Thrace, were to be regarded as established and not subject to exchange as were other communities living in Turkey or Greece. The Greek Government, however, confronted with masses of refugees pouring into Greece from various parts of Turkey, expropriated and divided many estates belonging to Turkish land owners, while, as a measure of retaliation, the Turkish Government seized the properties of Hellenic subjects in Constantinople. Negotiations on this subject have gone on intermittently—and at times heatedly—for 7 years.

The terms of the agreement have not yet been published, but it is understood that Greece undertakes to pay £425,000 to the International Commission for the Exchange of Populations, which is to be divided as follows : £150,000 to the Greeks of Constantinople; £125,000 to the Turks of Western Thrace; and £150,000 to those Greeks who left Turkey before and after the Great War on non-Turkish passports, and were not allowed to return, thereby being obliged to abandon their properties.

The agreement has already been ratified by the Turkish Government and is likely to be ratified by Greece without undue delay. Thus, it is to be hoped that a more amicable phase in Turco-Greek relations has now opened.



## REVIEWS.

**Personalities and Powers.** By Knut Hagberg.

*Translated from the Swedish by Elizabeth Sprigge and Claude Napier.*

(John Lane—*The Bodley Head, Ltd., London, 1930*) 12s. 6d.

The fifteen studies contained in this well written and well translated volume cover a wide and characteristic range, familiar to readers of the author's earlier work "Kings, Churchills and Statesmen," and throw into bold relief the striking contrasts of character and personality presented by men so diverse as Disraeli and Gladstone, Sir William Harcourt and Earl Balfour, Cecil Rhodes and Mr. Pickwick, George Wyndham and J. S. Mill, Lord Kitchener and Ernest Renan. The author offers just the right sort of intellectual pabulum to minds capable of rising above the fiction of the age, or the daily paper, but likely to stumble on the hard highway of dry-as-dust biography. And the more serious reader, too, cannot fail to be impressed by the literary charm and flavour of these shrewdly drawn but kindly miniatures. Complete accuracy cannot of course be expected, and at times the author is hardly convincing, but he is never superficial, and in these sketches records the impressions of a well-read student, who can turn a neat phrase, and who possesses the gift of sensibility and understanding. Unspoilt by turgid rhetoric, insipid moralization, or impudent epigram, the studies given are instinct with a graphic but serene appreciativeness, a sympathetic but respectful intimacy. Familiarity with the humaner letters has strengthened the author's belief in the old-world doctrines of the irony of fate and the tragedy of success, and he finds them aptly illustrated in the subjects chosen for analysis: some fail to fulfil the promise of youth, as George Wyndham, whom an innate sensitiveness and love of beauty prevented from facing the coarser and more brutal facts of life, and others feel at the close of a seemingly full and glorious career that their achievements fall short of their vision, their ambition, their capacity. The tendency of the modern light biographical study is either to whitewash the villains of history or to depict the valet's conception of its heroes. Dr. Knut Hagberg eschews this easy method of extravagant paradox, no less than the even worse method of making into supermen, men, who great though they are both in character and achievement, nevertheless share the common frailties of mankind. He wisely follows the more

classical model of portraying the cardinal features—often in violent contrast—of his characters, as he sees them from a careful study of contemporary literature, the cynicism and chivalry of Melbourne, the posing and humanity of Disraeli, the simple greatness and the hypocritical subtlety of Gladstone, the 18th century grandeur and almost banal matter of factness of Harcourt, the tenacity and philosophic doubt of Balfour, the imagination and commercialism of Rhodes, the organizing capacity and inarticulateness of Kitchener, the moral firmness and intellectual limitations of Grey. The sketch of George Wyndham, a fascinating personality, is perhaps the most brilliant of the series: that of Mr. Pickwick perhaps the least convincing. But when all are eminently readable, an assessment of comparative merit would be invidious, and in any case it is not the purpose of a short review to put forward a potted version of each character-sketch. The author must be allowed to tell his own tale. The English reader will find the volume well worth perusal, and stimulating both in matter and style. Dr. Hagberg has been fortunate in his translators, and it would be ungracious even in this brief appreciation of his work, to fail to pay a well-deserved tribute to their excellent rendering of the letter and their assimilation of the spirit of the original.

W. G.

**The Law of Aviation.** G. D. Nokes, L.L.D. and H. P. Bridges, L.L.D.

(*Chapman and Hall, Ltd., London, 1930*) 12s. 6d.

This book is divided into two parts, the first dealing with the law of aviation in peace and the second with that in war and neutrality. There is a division in another sense also, for while the first part describes the International and British law in being, the second informs the reader only of proposed international law to govern aviation in war and neutrality, since in effect no such law has yet received common agreement or been accepted by Convention.

The law applicable in peace is given concisely and in an orderly form which is supplemented by an adequate index. The knowledge should be possessed by anyone whether service or civilian whose duties are in any way connected with aviation as should be relevant common law on such subjects as petrol storage, salvage, trespass, etc., to which the writers refer in this section. It is to be noted that while much legislation has been effected in the short life of aviation, much

still remains to be carried out. The authors indicate the omissions. The British Air Navigation Acts, Orders and Directions, while they may be and in many cases have been applied to colonies, protectorates and mandated territories do not apply to Canada, Australia, New Zealand, Newfoundland and India which are excepted from inclusion. The legislation relative to those countries is not given, but it may be stated that in the case of India the relevant act is the Indian Aircraft Act 1911 supplemented by the Indian Aircraft Rules 1920, the latter being made under the Act and supplemented as necessary from time to time. These Rules follow, in general, British practice.

To Service personnel the legal situation of aircraft in war and neutrality (Part II) is perhaps of more interest. The authors show where existing international laws of Land and Sea Warfare may be held to apply to circumstances in which aircraft are liable to be concerned. In regard to the proposed international law for aircraft in war and neutrality there seems likely to be much contention. Many of the rules seem to have been proposed in ignorance of the qualities of modern aircraft and their armament. For example, owing to the alleged "comparative inaccuracy of bombing" rules are proposed which might seriously curtail the legitimate military use of aircraft. Again, the authors hold the view, talking of the right of search of merchant ships, that it is little likely to be used "for the majority of aircraft cannot alight on water and send a party aboard the ship." They also suggest that aircraft on the water are at the mercy of an armed merchantman, in apparent ignorance of the fact that the heavy machine-gun armament of the modern large flying boat could make decks uninhabitable and that on blockade patrol work such a craft would probably carry torpedos capable of launch from the surface.

Despite, however, the necessarily indefinite quality of Part II and some expressions of opinion rather out of place in what should be a book confined to a plain statement of law in being or authoritatively proposed, the authors have provided in small compass a book which should give to anyone concerned with civil or service aviation sufficient knowledge of the law for everyday use and an indication of where to go for detailed information.

N. S.-D.

**The Real War.** By Captain B. H. Liddell Hart.

(*Faber and Faber, London, 1930*), 12s. 6d.

Acting upon his conviction that the time has now arrived when further contributions of value to the existing mass of war literature are unlikely to be made to any great extent, Captain Liddell Hart has set himself the task of collating the possible documentary evidence and presenting in a readable and concise form a True History of the World War. Let it be said at once that he has achieved his object with remarkable success. The narrative deals not only with the British share, naval and military, in the struggle, but also with the part played by the Allied countries. Each incident of importance is given in its right perspective, while the criticisms of some of the great personalities of the War, although at times somewhat startling, are given with the fairness and impartiality which the weight of evidence demands.

As a concise survey of the World War the book is in a class by itself. The opening chapter deals with the origins of the War dating back to the end of the last century. This is followed by another on the opposing forces and their plans. Thereafter the method adopted is to give a general outline of the events of each year followed by a more detailed description of the important operations. The "Scenes" chosen as representative of 1914 are the first battle of the Marne and Tannenburg, while 1915 is illustrated by Gallipoli, the second battle of Ypres, and Loos—the unwanted battle as the author terms it. The War at Sea is represented by the Battle of Jutland, while Mesopotamia is dealt with in the story of the capture of Baghdad. In the Epilogue the author deals with the causes of Germany's collapse and points out that, whatever may be the verdict of history on her policy, unstinted tribute is due to her for the endurance and skill with which she held her own for four years against superior numbers. Her undoing was the stranglehold of the Blockade.

At the end of the book is a formidable bibliography which, apart from being a silent tribute to Captain Liddell Hart's industry and research, is in itself of considerable value to the student. In addition to the published works the author has also made use of a certain number of British and foreign documents, which, although they have not yet been given publicity, he has been privileged to see.

The book is furnished with an adequate supply of maps, but is somewhat stinted as regards its index. Altogether it forms a brilliant contribution to the literature of the War and is deserving of close study by all students of military history.

C. S.

**Oriental Memories.** By Dr. Friedrich Rosen.

(*Methuen & Co., Ltd., London, 1930*), 15s.

Hard is the lot of an author in these days who would find a market for a book of travels and adventures in the Near East. Before the war, Palestine, Persia, Syria and Mesopotamia were behind the veil for all but a few ambitious travellers and certain officials of the Diplomatic and other services. The war, however, rent the veil, and now those countries are well known and the number of the books, good and bad, but mostly bad, which have been written about them is legion. This book gives a description of those countries during the last forty years of the nineteenth century. The learned author, the well-known German diplomatist and orientalist, has a facile pen and describes his various little adventures in such an attractive and readable manner that one readily forgives the minor errors which might otherwise discredit his reputation for Oriental scholarship.

The soldier will find little that is of interest in this book, but an Orientalist may find it amusing to refresh his memory with stories of the past and to add to his repertoire of amusing and interesting anecdotes. Dr. Rosen is undoubtedly strongly Anglophile and the real object of the book would appear to be to revive the friendly feeling that used to exist between the English and Germans and to promote co-operation between the Oriental scholars of both countries.

C. A. B.

**Thoughts of a Soldier.** By General Von Seeckt.

*Translated by Prof. Gilbert Waterhouse, with an introduction by General Sir Ian Hamilton.*

(*Ernest Benn, Ltd., London, 1930*), 8s. 6d.

No one, not even the civil servant, has, of recent years, been subjected to so much misrepresentation as the regular officer. His fellow-citizens view of him is constantly obscured by that caricature

of a stupid, red-faced, sabre-rattling, reactionary which certain sections of the Press hold up as the embodiment of the military mentality. Hence it may come as a surprise to many of a post-war generation, reared on vague theories of pacifism and on neurotic war novels, that a soldier—and a professional soldier at that—should have any thoughts worthy of their intelligent consideration. Yet General Von Seeckt's book is well worth the consideration of all intelligent men and women, whatever be the catch-word, militarist or pacifist, with which they may label themselves. The publication of such a book is to be welcomed, not only for its intrinsic worth, but because it will help powerfully to the realization that the modern officer is a clear-thinking, humane and broad minded man and an essential servant of the State. General Von Seeckt is a type of the highly trained regular officer of all nations, and a study of his thoughts on the variety of political and military subjects that this book contains is to be recommended to all who wish to obtain a true idea of what a modern soldier is really like, what he has to do, and how he stands in relation to the State. No one could read these pages without realizing that, as General Von Seeckt says, "there is scope and occupation in the army for the highest mental as well as the highest physical efficiency."

To the average layman this book may prove something of a revelation; to the soldier, while offering no startling new theories, its thought-provoking lucidity and its instructional value will make an irresistible appeal. In the main General Von Seeckt follows the present trend of European military thought. He believes that the risk of war lies essentially in the inequality of military forces—and what present day German could think otherwise? His conception of the modern army is a relatively small, mobile "operational army" of the highest efficiency, composed largely of long-service volunteers, and "rendered distinctly more effective by the addition of aircraft." This force is to achieve the decisive victory by manoeuvre and offensive action, while the less mobile and less highly trained and equipped, but more numerous, "national army" secures its base—the home country. The chapters on "Statesman and Soldier" and on "Army and State" are admirable expositions of the position of the Fighting Forces in the Commonwealth, and apply as aptly to Britain as to Germany. His views on the necessity for cavalry in the modern army and on its training and employment are in principle

those taught in our own army, but, possibly because German generals have had less experience in the handling of armoured fighting vehicles than have those of any other great nation, he does not consider at all deeply the extent to which light tanks or armoured cars can replace or reinforce the horseman. As was to be expected from an officer who has had the unique experience of being Chief of Staff to every formation from a corps to a group of armies and to German, Austrian, Bulgarian and Turkish Commanders-in-Chief, the chapter on "The Chief of the General Staff" is particularly interesting. With us the Chief of Staff is the advisor of and executant for the Commander but, as General Von Seeckt says "the call to command comes to one definite person, the Commander-in-Chief." In our eyes nothing can relieve him of the responsibility for decision, nor can he share it with anyone. It is his alone. General Von Seeckt, however, goes on to remark, "the decision is taken by these two (the Commander and the Chief of Staff) together.....They have reached it together—they two are one." This magnification of the Chief of Staff at the expense of the Commander is a heritage from the old German system of royal, figurehead generals, who were of necessity, usually through character and invariably through their inferior professional knowledge, in the hands of their brilliant staff officers. Time and again in the Great War momentous decisions were taken by German Chiefs of Staffs amongst themselves without any real reference to their Commanders who sat twiddling their thumbs in the next room. One feels that in an army trained by General Von Seeckt such incidents would again be common. This weakening of the Commander is wrong—above all things the Commander should command. In Republican Germany there should be neither need nor place for these puppet generals.

The translation, like all Professor Waterhouse's literary work, is very well done. The publishers, in their anxiety to provide a substantial volume, have included a rather garrulous introduction by Sir Ian Hamilton and have generously interlarded the text with blank and title pages. But General Von Seeckt needs no padding—he is full value by himself. The soldier who misses this book will be unwise, and the civilian who reads it will be wiser than he was before doing so.

A. M.

**Caste in India.** By Emile Senart.

*Translated by Sir E. Denison Ross, C.I.E. (Methuen and Co., London, 1930), 8s. 6d.*

The original of this book appeared in French at the close of last century ; but has now for the first time been translated into English. The author in his introductory note states that nothing in more recent publications on the subject (and there have been many) has caused him to modify his conclusions. In this he is probably correct ; and it is noteworthy that, although his chapters on caste at the present day refer to a period thirty years out of date, even at that time he drew attention to the undoubted slackening of the rules of caste which is now so obvious.

The book is divided into three parts : "The Present," "The Past," and "Origins." In his preface M. Senart declares that he is addressing himself to the general public rather than to the Indianist ; but much of Part III and almost the whole of Part II demand a considerable technical knowledge of the subject.

Part I on the other hand is of great interest, and is well worth recommending particularly to officers of the Indian Army. In this the author attempts first to explain what is meant by "a caste," and succeeds in giving an extraordinarily detailed and careful definition on page 20. He then proceeds to explain the practical workings of caste rules, at the present day. The section on Marriage Laws explains clearly the extremely complicated system whereby a Hindu must marry within a certain circle, and yet must not marry within what is regarded as his own family. This section is followed by another of great value on social intercourse, including the restrictions as to acceptance of cooked and uncooked food, and water, from other castes, for each of which there are separate rules.

The chapter on Hereditary Occupations is perhaps of the most general interest. The author is strongly opposed to the popular theory that castes are merely occupational groups, an idea which he further develops in Part III when dealing with the origins of caste. His most telling example is that of the Brahmins, who though all of one caste, using the word in a wide application, vary in their occupations from priest to rickshaw coolies, or even professional thief.

Part II is a learned and careful investigation into the history of caste in the distant past, as it may be deduced from the ancient classical



literature of the country ; but is of interest rather to the " Indianist " than the general reader.

Part III contains the author's ideas as to the origin of caste. He examines and rejects current theories such as those which maintain that caste is purely a matter of occupation or race. His own theory, which he develops in considerable detail is that caste in India is a development of the old Aryan " family " system (*c.f.*, the early history of the Greek and Roman peoples) modified by contact with the non-Aryan indigenous inhabitants of India.

The translator declares that he has found his duty not an easy one, and admits that at times he has had to paraphrase the original French. It is a pity that he did not allow himself to do so rather more frequently, for his somewhat literal rendering of the French produces a style which demands very close attention on the part of the reader.

J. C. M.

THE ROYAL AIR FORCE QUARTERLY, VOL. I., No. 3,

JULY 1930.

(*Messrs. Gale and Polden, Ltd., London*), 5s.

The third number of this review which appeared in July fully maintains the high standard of excellence reached by the first and second numbers. The literary matter provided covers a sufficiently wide range of subjects to satisfy the most catholic tastes dealing, as it does with operations and intelligence, organization and administration, research and technical development, armament, practical flying, history, travel and, last but not least, short stories in the lighter vein. The reader's interest is further sustained by a number of excellent illustrations.

The articles which might, perhaps, be said to furnish the greatest interest from a purely military point of view are the two prize essays. The R. M. Groves Prize Essay deals with the civilizing influence of aircraft and of Imperial air communications. The author gives a clear and lucid review of the progress of civilization through the early and middle ages down to the present mechanical age. He points out that civilization is primarily dependent on the settlement of man in an area of continuous cultivation furnished with a system of communication, and, as an example, quotes, quite aptly, the salutary effect of the Razmak road upon the Wazirs and Mahsuds. So far, so good !

When he comes to discuss the use of aircraft in maintaining law and order we cannot altogether subscribe to the views expressed. The author states that —

“The advantages of rapid movement by air, quick concentration and action, and of economy, as compared with any other method of preserving law and order, are so great as to warrant the employment of aircraft; their method of retribution is humane, since it operates chiefly by moral effect and not by taking life.” Again, in referring to the necessity for providing protection by means of armed forces against the threats of raids the author states: “It is the peculiar property of air forces that they can achieve this purpose with no legacy of hatred and with a minimum of suffering to man.”

Experience obtained from the recent disturbances on the Mohmand border and in Waziristan goes to show the moral effect inherent in the threat of bombing operations has not in all cases deterred the tribal *lashkars* from assembling. Moreover, our experience in Waziristan indicates that to bring about the final submission of the recalcitrant tribesmen action by ground troops is necessary. The conclusion which can be drawn, therefore, is that active co-operation between the air force and the army is essential for success in operations of this nature. Owing to his mobility, his intimate knowledge of the country, and how to make use of the cover it provides, the tribesman has little to fear from actual bombing, unless he is unfortunate enough to be caught in the open, an occurrence which he is usually clever enough to avoid. Air action, therefore, to be effective must be directed against villages and crops, the destruction of which can scarcely be said to be accomplished with no legacy of hatred or with a minimum of suffering.

In the second essay which deals with the part which A. F. V.'s should take in air control of an undeveloped country, the author considers that some mobile form of ground force will nearly always be required to reap the results of air action against natives who live in inaccessible places, such as mountainous country, and advocates the use of armoured cars or armed fighting vehicles for this purpose. He does not appear to enlighten us, however, as to how he proposes his A. F. V.'s should approach these inaccessible places which are to be met with on the N. W. F. of India and which owing to lack of communications are frequently only approachable by troops on foot.

For internal security purposes the author also considers that some form of armoured car is essential. On occasions, A. C.'s may unques-

tionably be of great value for this purpose, but our recent experiences have shown us that, especially in towns, A. C.'s used by themselves may lead to complications and that their correct rôle is in conjunction with infantry.

There is an interesting article on the survey cruise of the Calcutta-Singapore Air Route by two flying boats of No. 205 Squadron which is copiously illustrated by a number of good photographs. Another article to which attention should be drawn is "Weather as a factor in history." In dealing with the influence of weather in war the author gives copious examples from military history ranging from the destruction of the Egyptians in the Red Sea when in pursuit of the Israelites down to the Russo-Japanese War. Having covered so much ground he might have gone a short step further and made mention of the effect of bad visibility at the Battle of Jutland and in the battles on the Western Front in 1918.

C. S.



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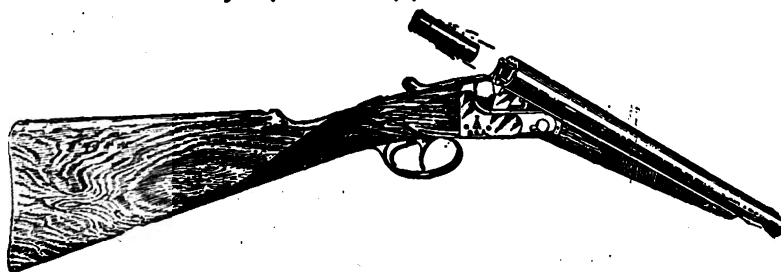
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